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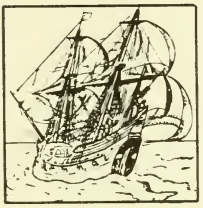

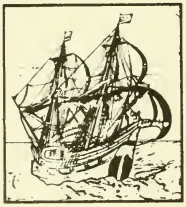

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THE DESTRUCTION OF THE H.C. ARCTIC MAIL SHIP.

NARRATIVE

OF

AN EXPEDITION IN H.M.S. TERROR,

UNDERTAKEN WITH A VIEW TO

GEOGRAPHICAL DISCOVERY

ON

THE ARCTIC SHORES,

IN THE YEARS

1836–7.

BY CAPTAIN BACK, R.N.

COMMANDER OF THE EXPEDITION.

ILLUSTRATED BY A MAP AND PLATES.

LONDON:

JOHN MURRAY, ALBEMARLE STREET.

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TO

THE RIGHT HONOURABLE

LORD GLENELG,

HER MAJESTY'S PRINCIPAL SECRETARY OF STATE

FOR THE COLONIES,

&c. &c. &c.

THE FOLLOWING NARRATIVE

OF AN EXPEDITION TO THE ARCTIC SHORES,

IS,

WITH SINCERE RESPECT,

DEDICATED

BY HIS LORDSHIP'S MOST OBEDIENT AND

VERY HUMBLE SERVANT,

GEORGE BACK.

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NARRATIVE

OF AN

EXPEDITION

IN

HIS MAJESTY'S SHIP TERROR,

IN THE YEARS 1836–7.

PRELIMINARY CHAPTER.

The interest which had been excited by the former Expeditions through the interior and along the coast of North America, and the successive information gained on every trial, induced the Geographical Society to draw the attention of Government to a proposed expedition for completing the coast line between Regent's Inlet and Point Turnagain. The project was entertained, and I had the honour to be selected to carry it into execution.

On May 13th, 1836, I received my official appointment to His Majesty's ship Terror, then lying alongside the Hussar hulk, at Chatham. She had been recently doubled, and in every respect strengthened with the most massive iron and copper fastenings, for a voyage to the Polar Sea. Some alterations were now

made to accommodate her to the new service on which she was destined, and a leak, which had been discovered on a short trip which she had made to Hull, was effectually repaired. She was also provided with a warming apparatus, which however, though probably well calculated for more temperate climates, was not found to answer its intended purpose in the North.

It may be briefly described as a purely wrought iron pipe two hundred and forty feet long, an inch in diameter, and five eighths of an inch bore, extending nearly round the ship and the midship cabins; the solution of strong brine, with which it was filled by the aid of a forcing-pump, being kept hot by means of a furnace, strongly built in brick within an iron tank or casing, in the interior of which several coils of pipe wound round. To guard against accidents, there were expansion tubes abaft the first bend coming from the furnace, which, in case of an excess of heat, became filled, and so prevented the bursting of the apparatus.

The advantage proposed to be gained over the well-tried method adopted by Sir E. Parry, was a diminution in the consumption of coals, a bushel being considered quite enough for a day's use. How far this calculation would have been borne out by fact, there was no opportunity

of proving; but it is only justice to Mr. Heath, one of the firm by which the apparatus was provided, to state, that he himself declared, "he should have scarcely recommended so novel a scheme on a service such as ours, where, if an accident occurred, there would be considerable difficulty in making the necessary reparations."

Three capacious, but comparatively light, whale boats were built, and an equal number of sledges with iron runners, so contrived as to serve also for the body of a carriage, which, when placed on wheels adapted to the contrivance, were expected, and could not fail, to be most useful for the conveyance of stores, &c. over the land.

For food at once the most portable and substantial, upwards of three thousand pounds weight of pemmican were manufactured from the choicest meat, with pimento and other spices mixed, to make it more palatable. In addition to this, there was a liberal supply of preserved meats and soups, together with a great variety of anti-scorbutics; warm clothing to provide against the cold of winter, such as fur caps, carpet or cloth boots, with cork next the feet, and bear skin blankets, &c.: but as I experienced some trouble in making out a list of what was actually indispensable, it may be of future use to insert it here:—

WARM CLOTHING.

Sea boots	130 pair.	Red flannel shirts	130
Cloth ditto, with cork soles	132 —	Wadmil hose	185 pair.
Ankle shoes	130 —	Swanskin drawers	130
Pea jackets	131	Comfortables	195
Monkey jackets	65	Welsh wigs	130
Flushing trousers, lined with baize	130 —	Fur caps	65
		Green crape	100 yds.
		Bear skin blankets	70

PROVISION FOR EIGHTEEN MONTHS' CONSUMPTION.

Bread	35,860 lbs.	Preserved vegetables	1320 lbs.
Spirits	1519 gals.	Potatoes	4480 —
Brandy	100 —	Carrots in sand	10 casks.
Wine	49½ —	Molasses	800 lbs.
Salt beef	1634 lbs.	Essence of spruce	50 pots.
Salt pork	3280 —	Do. do.	50 —
Flour	9896 —	Macaroni	1200 lbs.
Suet	1652 —	Rice	1541 —
Raisins	728 —	Pickled cabbage	125 gals.
Tea	613 —	Walnuts	50 —
Oatmeal	82 —	Horse radish	50 —
Peas	145 —	Onions	50 —
Chocolate	1951 —	Mixed pickles	100 —
Sugar	3107 —	Cranberries	100 —
Do. for lime juice	798 —	Salt	336 lbs.
Butter	337 —	Mustard	375 —
Cheese	450 —	Pepper	60 —
Vinegar	203 —	Normandy pippins	55 —
Concent^d^ do.	50 —	Arrow root	30 —
Soap	1200 —	Prepared barley	24 —
Tobacco	1001 —	Portable soup	20 —
Fresh beef and live stock for	35 days	Coals	112 tons.
Lemon juice	798 lbs.	Oil	101 gals.
Pemmican	4874 —	Cooking apparatus for boats complete	3
Candles, wax and tallow	3124 —	Pyroligneous ether	120 pts.
Pemmican, with currants	1080 —		
Preserved meats	9001 —		
Vegetable soups	372 qts.		

These, together with a complete set of anti-mildewed tents, oiled-cloth floorings and covers, completed us in this respect, while an ample supply of fowling-pieces, rifles, and ammunition, made our outfit of the most perfect description.

The following instruments were also supplied by the Admiralty: —

Artificial horizon	1	Magnetic intensity instrument	1
Marine barometer	1	Sympiesometer	1
Azimuth compasses	2	Spirit thermometers	8
Alexander's steering do.	1	Six's thermometer	1
Boat compasses	3	Small do. in brass cases	4
Kater's compasses	2	Common mercurial ones	6
Dipping needle	1	Transit instrument	1
Case of instruments	1	Night telescope	1
Massey's logs	3	Bottle of spare mercury	1
Sounding machines	2	Also a variety of books and stationery.	
Hygrometer	1		
Case of bar magnets	1		
Measuring chain	1		

We were also provided with Fraser's fire hearth and coppers, which, besides throwing out more heat than those commonly in use, had the decided advantage of consuming less fuel, and were therefore particularly desirable in a ship with a limited quantity of coals.

Most of the officers, and all the men, were volunteers; the whole number amounting to sixty, in the following proportions: —

George Back	Captain.
William Smyth	First Lieutenant.
Owen Stanley	Second Lieutenant.
Archibald M'Murdo	Third Lieutenant.
James Saunders	Acting Master.

James Donovan, M.D.	Surgeon.
Graham Gore	Mate.
Robert M'Clure	Mate.
Peter Fisher	Mate.
Charles Marcuard	Extra Mate.
James A. Mould	Assistant Surgeon.
William Lawes	Clerk in Charge.
Thomas Donaldson	Gunner.
John Vaughan	Boatswain.
John Smith	Carpenter.
George Green	Ice Mate.

SEAMEN.	
Captain's coxswain	1
Quarter-masters	3
Boatswain's mate	1
Sailmaker and crew	2
Armourer	1
Armourer's mate	1
Carpenter's crew, including 1 mate	4
Able seamen	22
Captain's steward	1
Captain's cook	1

MARINES.	
Serjeant John Maslin	1
Corporal Henry Plumstead	1
Privates	5

The following orders were enclosed in an official communication from the Honourable Charles Elphinstone Fleeming, at that period commander-in-chief at Sheerness:—

"By the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c.

"His Majesty's Government having been pleased to command that another attempt by the way of Wager River should be made to trace the northern boundary of the North American Continent: We have thought fit to appoint you to the command of that expedition, and you are

hereby required and directed to put to sea in His Majesty's ship Terror, under your command, the moment that she is in all respects ready, and to proceed with the utmost celerity in the execution of the following Instructions :

"If, on quitting the Nore, the wind should be decidedly from the westward, you will pursue the usual track, north about ; but if, on the contrary, the wind should appear to promise a more speedy passage down the English Channel, you are to push out in that direction, as affording the best chance of completing this undertaking within the present year, which will mainly depend on your early arrival off Hudson's Straits, so as to be able to take advantage of the first opening in the outer barrier of ice, provided you should find it still shut up.

"Having once entered this strait, you will probably find the water comparatively free till you approach Salisbury Island, and you will then have to choose between the direct and obvious course up Frozen Strait, which was performed with apparent ease by the Fury and Hecla in 1821, or the more circuitous route by the Welcome, which was unsuccessfully attempted by the Griper in 1824, but which you are left at liberty to adopt, if the state of the ice, after the late severe winter, should render Frozen Strait impassable. Again, though we consider Wager

River will be, for many reasons, the most eligible place for the commencement of your operations, yet, as the same combination of wind, tide, and ice, which would render that inlet difficult of access, might equally facilitate your entrance into Repulse Bay; and as this bay would appear to be not more distant from Regent's Inlet than Wager Bay, you are further left at liberty to run for the former, instead of persisting in a tedious struggle to reach Wager Bay.

"Into whichsoever of these inlets you may find it expedient to conduct His Majesty's ship, your first object will be to place her in present safety; and then, having previously arranged a sufficient number of light reconnoitering parties, and having duly provided them with all necessary provisions, tools, and signals, you will detach them in any and every direction that may appear most promptly to lead to the discovery of a suitable track for transporting the boats and stores across the land which intervenes between these inlets and the sea.

"While these parties are employed on this important service, a rapid examination must be made of the character of the shores of one or other of these inlets, and of their several creeks and harbours, along with the set and rise of the tides, in order to the selection of such an anchorage as may ensure the perfect security of the

ship during your absence, and as may promise a ready egress to her at the close of the season, when your operations have terminated, and when the young ice may be expected to form. In this point of view, the position, and the small comparative depth of Repulse Bay, would appear to offer an easier and more speedy egress.

"The officer left in charge of the Terror is to receive from you specific orders, not only as to his general proceedings while you are away, but as respects his intercourse with the natives, as well as the series of observations he is to record, and the mode in which he is to conduct a survey of the inlet, including the neighbouring lakes, its accessory rivers, if any, a continued register of the times and heights of the tides at high and low water, and the elevation and geological character of the adjacent hills. You will communicate to him the probable period of your absence, and you will arrange with him a few signals, by means of a gun fired in the stillness of night, at a precise hour, or by rockets or flashes, some of which may eventually be of great importance in cases where assistance may be required. Lastly, you will give him directions how to act, should any misfortune befall yourself and the other detached parties; and in the contemplation of such an event, which may retard the return of the parties about the period fixed

for their purpose, you will appoint some ultimate period in the ensuing year, beyond which he is not to protract his stay, but peremptorily to repair with His Majesty's ship to England; in which case it would be advisable that he should endeavour to communicate a statement of any accident that may have occurred to Fort Churchill.

"Having satisfactorily settled these preliminary but important arrangements, you will then proceed in the execution of the main objects of the voyage. These objects are, —

"First, To ascertain the general form and position of that part of the northern coast of America which extends from the point where you may first strike the sea shore of Prince Regent's Inlet, as far as the western mouth of Fury and Hecla Strait; and if that service should be accomplished with facility, or if no serious obstacle should there present itself to the timely return of the party, the western coast of Cockburn Island might be pursued as far as the Cape Kater of Parry's first voyage, but forbidding the officer of the boat whom you may detach on this service, to penetrate far into any of the openings by which that probable group of islands may be intersected; and on no account to risk the prolongation of the fixed period for returning to the ship; not even to persevere in the attempt

to cross the Fury and Hecla Strait, provided any very serious difficulty should present itself.

"Secondly, The determination, in a similar manner, of the continental coast line from the point of arrival on Prince Regent's Inlet, to the mouth of the River Back, and after passing Maconochie island, the continuation of the main shore as far as the Point Turnagain of Franklin; to cross the strait which is supposed to separate the continent of America from the islands to the northern end of it, tracing the shore to the farthest point of Captain James Ross's discovery, and, if time will allow, to proceed from thence to the spot where he determined, by observations, the position of the northern magnetic pole.

"You will instruct the officers in command of the two foregoing parties to note down as they proceed, on each day, the state of the sea with regard to ice, the one party in a northern direction, the other to the westward; and also, if any land should appear in these directions, to like its bearings and probable distance, it being of great importance to ascertain whether the Arctic Sea, to the northward of the north coast of America, be from appearance navigable by ships of considerable burden.

"In the event, however, of finding that these positions of Captain James Ross are actually on the continent of America, the party may return

to the ship, as the second party, directing their course towards Point Turnagain, will, in that case, decide from what point the trending of the coast to the northward commences.

"To the vigorous pursuit of these interesting geographical questions, all minor objects must be sacrificed; and no halt in the progress towards the termination of the journeys above mentioned should be any where permitted, for the purpose of obtaining information on any of those collateral subjects which otherwise it would be highly desirable to collect.

"Nevertheless, on the return of the parties, when they can estimate what time they have to spare, and at every nightly station, every adverse gale, or impervious fog, will afford opportunities for observing the magnetic dip and intensity, and for encouraging a variety of valuable researches in other branches of science, the necessary instruments for which purposes have been supplied to you, and the opportunities for effecting which you will no doubt discreetly employ.

"In any large enterprise of this nature much must be left to the experience, judgment, and responsibility of the commanding officer; and as the general objects of this Expedition have been fully explained to you, so the detailed manner of executing them is hereby committed to your own discretion and zeal, always re-

collecting our anxiety for the health, comfort, safety, and ultimate credit of yourself, your officers, and your crew. In like manner you will have to repose a similar confidence on those officers to whom you entrust the command of the detached parties; but you will endeavour to guide them by the most explicit instructions which it may be in your power to give.

"You will assist them by a minute exposition of all the resources which you have derived from the fruits of your own experience, and you will give them peremptory injunctions to return to the ship at a definite fixed period.

"The foregoing instructions have been framed with the intention, and in the full belief, that this service may be duly and faithfully performed in the course of the present season, and that this Arctic Expedition may be distinguished from all others by the promptitude of its execution, and by escaping from the gloomy and unprofitable waste of eight months' detention: it is therefore our distinct orders, that every effort shall be made to return to England in the fall of this year. Difficulties may however occur, which we cannot foresee; some of the detachments may have been detained by uncontrollable events, or may have been visited by accidents requiring assistance at a considerable distance; and in these cases you may find yourself compelled to

winter abroad. If such should, unfortunately, be the issue of all your best exertions to comply with our order to return home, you will endeavour to provide, in the most effectual manner, for the safety of his Majesty's ship, and for the health and comfort of your crew, and you will continually and sedulously employ all the scientific means at your disposal, in rendering your long winter as beneficial as circumstances will permit.

"In the same spirit, when the days become sufficiently long, you will, by short and well-prepared expeditions, add as much as you can to our knowledge of the adjacent regions. In the case supposed, when the ice opens in the ensuing summer, you may devote *a short* season to such pursuits, and in such directions as you may consider most conducive to the general objects contained in these instructions, but you will take such timely measures as may prevent the possibility of a second year's detention.

"On your arrival in England, you are immediately to repair to this office, to lay before us a full account of your proceedings; and you will demand from the officers, and from all other persons under your command, the logs and journals they may have kept, together with any charts or drawings they may have made, all which are to be sealed up, in order to their being

hereafter disposed of as we may think proper to determine.

"Given under our hands, this 11th day of June, 1836.

"CHARLES ADAM.
"GEORGE ELLIOT.

"*To George Back, Esq.,*
Captain of His Majesty's ship Terror,
at Chatham.

"By command of their Lordships,
"*John Barrow.*"

The kind and valuable assistance I received from the officers who preside at the head of the different departments from which we were supplied with stores, &c. demands my warmest acknowledgments.

Admiral the Hon. C. E. Fleeming lost no opportunity of facilitating my wishes in every respect; while it would be difficult to express what I owe to Sir James Gordon, for the interest he evinced, and the active measures he pursued to get the ship quickly ready for sea.

Nor can I sufficiently thank Lieutenant (now Commander) Smyth, the officers and crew of the Terror, for their energetic services and most praiseworthy conduct, under trials of no

ordinary description, sustained by all with patient fortitude. From the journal of Commander Smyth I have derived much benefit in the compilation of the following Narrative, and to him, also, I am indebted for the faithful and spirited drawings which embellish it. The Chart is the work of Lieutenant Stanley, to whose efficient services I have great pleasure in bearing testimony.

CHAPTER I.

Departure from England. — Cape Farewell. — Porpoises and Gulls. — Driftwood with Roots and Bark. — Leave the Vicinity of Cape Farewell. — Icebergs. — Course novel and interesting. — Resolution Island. — Whirlpool. — Descry two Vessels. — Dreary Aspect of the Savage Islands. — Visited by Esquimaux. — Difficult Navigation. — Vessel moored to an Iceberg. — Crew exercised at Small-arms under its Lee. — Geological Indications. — Careen the Ship. — Progress through the Ice. — Salisbury Island. — Ship followed by Esquimaux. — Land discovered. — Deviation in Compasses. — Trinity Isles. — Ship obliged to heave-to. — Whales seen. — Ship imbedded in Ice. — Baffin and Southampton Islands. — Perilous Situation. — White Whales. — Winter Island. — Water Sky.

The incidents of a voyage along the coasts of Great Britain and across the North Atlantic, however interesting to the actors, have been rendered so familiar to the English reader, that, passing rapidly over the earlier events, I shall hasten forward to the peculiar circumstances that distinguish the present expedition from those which have preceded it.

I had requested, and obtained, from the Admiralty the assistance of a steam vessel until we should be clear of the shoals, and about eleven A. M. of the 14th June, 1836, the Terror left Chatham, and was towed along the Medway by the Rhadamanthus steam vessel, amidst cheers

from the vessels on either side of the river. At Sheerness we were compelled to wait for gunners' stores, and it was not till the 16th that we were finally under weigh and clear of the river. Baffling head-winds prevented me from discharging the steamer as I had intended at Flamborough Head, and we were towed along at a slow rate until, on the 21st, we reached the bay of Aberdeen. The wind, which for some days had been squally, had now freshened to a gale, and, as it was impossible to make any advance, the vessel was brought to an anchor. The watering was completed, and, in accordance with a plan on which I had previously determined, the remaining leisure was employed in converting the ship into a barque. To nautical men, especially those accustomed to polar navigation, it is unnecessary to explain the advantages of the change; but to the uninitiated it may be proper to mention, that the difference consists in the more simple rigging of the mizen-mast, whereby several sails, in themselves of no great use, being dispensed with, the vessel is more easily worked, and many hands are set free for other duties essential in the difficult navigation through the ice. The superfluous spars, which would have only encumbered us, were placed on board the Rhadamanthus and returned to Chatham.

Even as it was, our decks presented a singular

appearance: there was a large stock of coals stowed in double rows along the quarter-deck and gangways, leaving but a very narrow space for the officers and men to pass. There were three boats on the booms and two on the quarters. On the skids over the quarter-deck were two whale-boats, besides several immense sledges, and whatever else could be stowed there. Large spars, planks, and a hand-mast, two tons of potatoes, provender for twenty sheep and ten pigs, the sheep and pigs themselves, with sundry ducks and fowls, occupied every other disposeable nook; and though, by a little method and skilful stowing, all this mass of dead and living lumber had been made to assume some degree of form and regularity, yet it may be well imagined that there was no superfluous space.

The crew, when mustered at divisions on the Sunday previous, presented to the view as fine a body of men as could glad the heart of a commander; and, though experience had taught me to distrust impressions of this kind, yet, when I cast my eyes over the files, and, on a subsequent inspection, saw the neatness and comfort conspicuous in the berths, I could not avoid drawing a favourable omen for the future.

Early in the morning of the 22d (the wind having shifted in the night) we left our anchorage, still towed by the Rhadamanthus, and stood

along the shore for Buchan-ness. In the evening, the wind freshening to a stiff breeze, compelled us to cast off the tow-rope; and with a view of saving time, as well as the risk of lowering a boat, we sent off our letters in a keg made fast to a line veered from the Rhadamanthus for the purpose. The next morning, being off the Orkneys and the wind favourable, it was thought unnecessary to detain the Rhadamanthus any longer, and Mr. King having received his instructions, parted company from us, in the true English style with three hearty cheers from his crew.

We now shaped our course for Cape Farewell. From the 24th to the 27th, we had occasional squalls, with a short pitching sea, and, on the 27th, a strong gale from the S. W. The sailing qualities of the Terror were thus put to the test; and it was gratifying to find that, deep and lumbered as she was, and though at every plunge the bowsprit dipped into the water, she yet pitched so easily as scarcely to strain a rope-yarn, and, in seaman's phrase, made very good weather of it. This sort of weather continued with little intermission till the 30th, the sea washing over the decks, and the men constantly employed; but, on that day the wind moderating and becoming at the same time more favourable, the royals and all the studding-sails were for the first time set, and the gallant ship in the full pride

of her expanded plumage floated majestically through the rippling water.

On the 4th of July, we were distant from Cape Farewell 537 miles, in lat. 59° 59′ N. and lon. 25° 25′ W. Here a remarkable change was observed in the colour of the sea, which, though under a cloudy sky, assumed a sort of bottle-green tint, such as is often seen in shoal water over a sandy bottom. On this, as on some of the preceding days, there was a heavy swell from the S.W., the waves being estimated to range from 15 to 18 feet in height. On the 6th, we found ourselves in lat. 61° N.; and, though there was reason to expect that from the combined action of the westerly winds which had so long prevailed and the southerly current, the drift ice from Davis and Hudson' Straits would be carried so far to the S. E. as to leave a clear passage to the north; yet, apprehensive that some ice might still be hanging along the coast east of Cape Farewell, I put the ship on the other tack, and stood to the southward.

On the 9th, the weather was calm, and, taking advantage of this to inspect the holds, we detected an unusually fetid odour, which on examination was found to proceed from a quantity of carrots packed in casks filled with sand. The casks were opened, and so offensive were the contents, that even the pigs refused to eat them.

and, much to our regret, we were compelled to throw overboard our whole stock of a vegetable which would have afforded us an agreeable as well as wholesome variety of winter food. The cause assigned for the accident was, that the sand in which the carrots were packed had not been thoroughly dried. On Sunday the 10th, the crew being mustered as usual by divisions, I announced my intention of putting the ship on two-thirds' allowance of provisions, at the same time carefully explaining to the men that, in so doing, I was actuated solely by a wish to provide for their comfort, in case of any of those disastrous contingencies to which a service such as ours was peculiarly subject. On the following day, this resolution was carried into effect as to every thing but spirits and oatmeal, of which there was an abundant stock; and it is due to the men to say, that the regulation was submitted to with apparent cheerfulness. The wind still blew perversely from the west, and our rate of sailing scarcely exceeded three knots an hour, much to our annoyance, who felt how the best part of the season was thus, as it were, slipping out of our grasp. The heavy swell also continued, and, for some days after this, the ship rolled almost helplessly on the long waves; sometimes even drifting bodily to leeward. After a short interval of calm weather,

which was gladly taken advantage of for drying the clothes and hammocks, the wind again blew hard from the S. W., and for some days rendered any advance impossible. On the 18th, the gale abated, and the wind getting more to the south, enabled us to lay on our course. On several occasions before this, in the intervals of good weather, I had observed porpoises in great numbers gamboling about the vessel; and at this time in particular, we were visited by a large shoal, whose sportive tricks and ludicrous attitudes relieved the monotony of the scene, and afforded us much amusement. When they left us, a flock of gulls succeeded, and approached with so much boldness as to catch the bits of tallow thrown to them from the deck. It is needless to say that they came and departed unmolested. On the 20th, a breeze from the S. S. E. sprung up, which, before noon the next day, had increased to a strong gale, and carried us at the unusual rate of six knots an hour to the westward of Cape Farewell. This, however, did not last long, for the wind again drew round to the west, and ended in a calm.

Here some drift-wood was observed, to one of the pieces of which the roots and bark were still attached. It could not, therefore, have been long separated from the land, but from what land it is not easy to determine. The consider-

ation of this subject possesses more interest than at first sight may appear. We have the authority of nearly every navigator for upwards of three centuries, that drift-wood has been invariably seen somewhere near the parallel of Cape Farewell; whilst, on the other hand, by the recent voyages of Sir E. Parry and Sir J. Ross we are assured of the entire absence of drift-wood from the north-western parts visited by them. Sir E. Parry, in particular, asserts that none was seen by him in a period of five years. Whence then does this wood come? Egede tells us that, in some parts of Greenland, he saw a small species of pine, perhaps not unlike the swamp fir of Hudson's Bay; but the wood observed by us was of a longer kind, more resembling that usually found inland on the alluvial banks of large rivers; and there seem to be only two places whence the wind and prevailing current could bring wood of that description. It may be, that it proceeds originally from some part of the coast of Labrador, and that the trees there being detached from the banks of the streams, on the breaking up of the spring ice, and carried down by the floods which usually accompany the disruption, are whirled about in the conflicting eddies along the sea-shore, until getting within the influence of the regular southerly current, they are met by a south west gale,

and thus driven to the part where they are generally seen. The other, and, in my judgment, not improbable explanation, is to be found in the well-known fact, that vast piles of huge drift-wood, consisting of balsam, poplar, larches, firs, and birch, are swept by the annual flooding of the Mackenzie into the Polar Sea, and are there carried out in different directions as the tide current and set of the ice may determine. The greater portion, we know, parts east and west of the mouth of the river, and accumulating on the Polar shores, furnishes to the poor Esquimaux an invaluable and inexhaustible supply of material for their canoes and other rude implements of art. But is it impossible that another portion may be driven out far to the north, and there, meeting with a westerly current, be brought into Davis's Straits through some yet unexplored channel?

On the 23d, we at length gave our willing adieu to Cape Farewell, under the welcome influence of a breeze from the eastward; but in the night the wind shifted and blew hard, making a sea, which kept the men half-leg deep on the quarter-deck. From the 25th to the 28th, we had a pleasant run across Davis's Straits under a steady breeze from S. W. Day-light on the 29th exhibited to us a small iceberg, and soon afterwards several larger bergs and a heavy

stream of ice were discerned to the westward. We advanced close to the margin of the latter, and then tacked off: it was composed of large floe pieces, and ran in a direction from N. W. to S. E. The rapid fall of the thermometer in the night had indicated the vicinity of ice, and now a thick fog coming on which obscured the view, we were informed only by the still greater depression of the temperature, and by the roaring of the surf distinctly heard, that we were not far from some considerable mass of ice. Accordingly in the evening when the weather cleared, we observed an enormous berg, the perpendicular face of which was not less than 300 feet high, and other smaller bergs, nine altogether, in other directions. Preparations had been made for avoiding or escaping the danger of a too close acquaintance with these gigantic neighbours, in case the fog had continued; and, among other things, the boom foresail had been bent, — a sail which, as nautical men will be aware, is, by reason of its quick movement, of excellent use in narrow channels and consequently among ice, where it is necessary to alter course often and suddenly to avoid the floating masses. The clearing of the weather rendered these precautions for the present unnecessary, and we proceeded on our course with studding-sails set, until suddenly a

gleam of continuous ice was seen right ahead, which threatened an interruption of our progress. But as the morning of the 30th broke we found the heavy stream before us less compact than had been feared, and entered the pack with confidence.

The day was beautifully fine, and to those who were novices in this sort of navigation, nothing could exceed the interest of the scene: — the tall ship with all her sails set threading her graceful way through the masses of ice, upon a sea as smooth as an inland lake. What a contrast from the mountain waves over which we had been tossing and tumbling for weeks past! Again, in the far horizon, there was the ever-welcome loom of land; and though from our distance according to reckoning, some doubts were at first expressed as to the reality of this appearance, yet these were soon afterwards set at rest, and the land at eight A. M. was distinctly visible to the naked eye, stretching from W. to to N. W. by N. We supposed it to be Blackhead on the Labrador coast, not far from Cape Chudleigh, and which our noon observations placed sixty miles distant. It is to be remarked, that the weather was unusually clear, with a temperature of 36°, and the wind blowing off the land, so that objects could be discerned at a great distance. There was a considerable quantity of

snow on the summits and sides of the coast, which about 11 A. M. was refracted into the most eccentric outlines, some not unlike the form of a pagoda. The latitude to-day was 60° 17′ N. and longitude by chronometer 61° 57′ W., from which we learnt that we had been set by the current no less than forty-one miles south in the space of two days. Our distance from Resolution Island, at noon, was sixty-nine miles.

Towards evening the wind dropped, and we bent our cables to be in readiness, in case we should be carried into situations where it might be necessary to seek an anchorage. A thin ice formed during the night, and, on the 31st, the pack seemed to have gathered more closely around us. The day, however, was beautifully calm, and a boat was sent to procure fresh water from the pools formed on the surface of the larger masses of ice. A light breeze soon afterwards sprung up, which, though scarcely raising a ripple on the water, kept the sails full aloft, and carried us gently onward at the rate of two knots. The nearer view now afforded us of the land presented nothing attractive. Peaked and splintered hills, resting on a sort of shelf or ledge, which again broke off perpendicularly into dark cliffs raised upon shelving banks covered with snow; and farther off, though still, as it

seemed, connected with these, a ridge of heights rounder and more regular, but all bare and desolate, without one tinge of green to relieve the sombre picture, — such was the forbidding aspect of this unsocial coast. After divine service the boat was again sent for water, which was found to be of excellent quality, and our stock was increased to eleven tuns, — a supply amply sufficient, however long our run might prove to be. Throughout the 1st of August we continued to push our way through the yielding masses, with no further mischief than a few thumps and grindings.

We were now fast approaching Cape Chudleigh and Button's Isles, and, not long afterwards, land was descried to the N. E., which we knew to be Resolution Island, and the land to the westward of it, when suddenly a delta of ice appeared in front of us, so close as to defy all attempts to penetrate it. Of the navigable 'lanes' at its sides one led considerably to the east, and the other branched immediately along the Labrador coast beyond Button's Isles, from thence apparently leading into open water. My general plan was to have kept the north shore close aboard, after the example of the able officers who had preceded me on these services; and, indeed, of the Hudson's Bay ships, which

invariably take that direction in their outward passage ; but having a commanding breeze and a clearer space for sailing in, I did not hesitate, under the circumstances, to take the south shore, intending to follow it up until a change in the wind or ice should render it advisable to edge over to the usual track. At 8h P. M. Resolution Island was seen bearing by compass N. by E., and we were beginning to flatter ourselves that we had cleared the obstacles when, about noon, a dense fog came on, and the ice increased in quantity and dimension so much as to excite some apprehension of the practicability of passing it. At 2h of the following morning, the fog was so dense that the 'leads' or openings could not be distinguished, and there was no resource but to heave-to until the weather should be clearer. In an hour's time it did clear, and, though for a few minutes only, yet the interval enabled us to catch a glimpse of a passage between some large masses ahead. The breeze was quite fair, and again setting the small sails we ran on through very heavy ice, sometimes temporarily arrested, and at others boring through every impediment, not, however, without receiving some violent concussions.

By 7h A. M. we had cleared this difficulty, but soon came to a solid pack from twenty to twenty-five feet high, which, of course, there was no

hope of penetrating. Wishing, however, to keep as near mid channel as I could, I coasted the edge of the pack until a narrow stream was seen, through which we bored our way until we again came to heavy sailing ice. It was exceedingly difficult to ascertain whereabout we were, for independently of the fog, which of itself was bad enough, the whole of the compasses became so sluggish as to require tapping with the finger every five or ten minutes to make them traverse at all, and could not, therefore, be depended on. There was, however, no choice, but either to run on at all hazards, or to heave-to, at the risk of being beset in the pack, which every moment the wind was driving closer. Rather than be detained in such a manner, at least in this place, I determined to stretch over to the north shore, which, in fact, had now become the weather one, and to depend on the sharpness of our sight for discovering the land, at the same time, having every thing ready for guarding against accidents. The manner in which this resolution was executed was highly creditable to the ice-mate, Mr. Green, and the gunner, Mr. Donaldson, who took upon them the duty of piloting the ship in these situations by turns, — a duty for which the latter, in particular, was well qualified by the experience he had acquired under Sir E. Parry. Frequently,

while boring through the packed pieces, or endeavouring to force some mass aside, the officers were among the foremost over the bows to assist in carrying out an ice-anchor with a line to warp the ship, or, with long poles, to push the ice away from the stern, and all seemed really to enjoy the novelty and excitement of the scene.

The ice for the most part was old and rotten, consisting of portions of broken floes, with square blocks and hummocks on them. The weather throughout the afternoon continued so thick, that even ice could not be discerned above two hundred yards off; and being, as we supposed, near the north shore, I was not a little anxious lest we should be driven by some violent current against it an accident which, having experienced on a former occasion, I was by no means desirous of encountering a second time. Towards midnight, we found ourselves embarrassed amongst floes and very heavy ice, the difficulty of avoiding which was much augmented by the lightness of the breeze then blowing from the south-west. However, in the morning of August 3d, the breeze returning to its old point of S. E. freshened a little, most opportunely and fortunately for us, for the weather continuing equally misty, we were becoming entangled amid large masses of ice which, under the influence of a strong current, often

struck the ship with a force that made her reel; while the windward stream was approaching the leeward so rapidly as to make it extremely doubtful whether we should not be caught between them, and there be beset for, perhaps, several days. Every sail that could be of the least utility had been set, and for a short interval we seemed to be gaining ground, but on altering the position of the head to clear a small floe directly before us, the current took the ship on the starboard beam, and sent her bodily towards the stream to leeward; and whilst we were contemplating this result as almost inevitable, one of those whirlpools which are common in the vicinity of the Island of Resolution caught us, and turning the ship round against the helm, rendered her totally unmanageable. This seemed to decide the matter; and we must infallibly have been carried into the already dense pack, had not the breeze at that moment suddenly freshened, and forced us onwards towards an opening a-head. About the same time (3^h A. M.), the eastern horizon cleared, so as just to enable land to be seen much nearer than, under these circumstances, was desirable; for, in that direction, with such a confusion of cross currents, we had scarcely any control over the ship, and the weather again thickened with rain, which, with the thermometer at 31°, froze on

the rigging as it fell, and hung in icicles from the boats and hammock-rails.

There was now no choice but to endeavour to close the shore and get to windward of the whole body of ice, and this having succeeded after repeated trials in effecting, we continued during the remainder of the forenoon running at a moderate rate through sailing pieces, which from their size there was little trouble in steering clear of. Observations could not be got, but the dead reckoning placed us in latitude 61° 39′ N., and some doubtful sights gave the same latitude, and longitude 67° 7′ W.

The weather, which during the day had been hazy, cleared towards the evening, and gave us a distinct view of the bleak and snow-streaked land, with several islands, which we conjectured to be part of the group lying between the middle and lower Savage Islands. The sea being very calm the officers lowered a boat, and set off in quest of the seals and loons which were swimming about; but a brace of the latter was the only result of a considerable expenditure of powder and shot. During the night, with a light breeze heading us and the vessel close hauled, I found to my surprise that, of course under the influence of some current, the ship had weathered, or, in other words, gone to the westward so much, that I gladly kept under

weigh, passing between large pieces of ice without inconvenience. The same thing continuing the next day we found ourselves at noon, by the observations, abreast of the middle Savage Islands, and could see the extremes of land from S. E. to N. N. E., the nearest being six or seven miles distant. It was not, however, till some hours had elapsed, that the remarkable land called Saddle-back could be made out. At this place, every vessel having occasion to visit the straits has invariably fallen in with Esquimaux; but, although we stood within a few miles of the shore, none appeared, nor did we perceive any trace of them, from whence I inferred they had already made their annual barter with the Hudson's Bay ships, and were gone into the interior to hunt. About three in the afternoon an iceberg, about forty feet high, and of very picturesque form, suddenly, at the distance of about a quarter of a mile from the ship, either toppled over, or parted with a large mass detached from its summit. The splash in the water, the foam which succeeded, and the fearful rockings of the berg before it again settled upon its base, gave us some notion of the danger of a too close neighbourhood on such occasions. The breeze was lost as night drew on, and the usual calm succeeded; but at 11^{h} P. M. a light air crept along the water from the south, and having

again set the studding-sails, by midnight we were making some progress through the water.

Early on August 5th the ice, which for a brief interval had disappeared in a manner altogether unaccountable, was again reported to be a-head, and we shortly found ourselves beset by it on all sides, not, however, so compact as to stop us altogether. In this we might be considered fortunate, for, at 4^h A. M., a ship and brig, supposed to belong to the Hudson's Bay Company, were observed working through heavy-packed ice to leeward, the brig considerably a-stern of the other. Our colours were immediately hoisted at the mast-head, but were not answered; and, every moment being precious, I pushed on without further notice of them, until about 7^h A. M. I was arrested, in my turn, by a continuous line of the same pack, which it was now evident run in towards, if not altogether to, the upper Savage Islands. At first, the prospect of detention seemed inevitable, but few things are more uncertain than the navigation among ice, and, however desperate the situation, there is generally room for hope. So it turned out now in our case; for, when measures were about to be taken to reduce sail, lanes of water were distinguished round the deep bay or inlet formed within the upper Savage Islands; and, although the following of these lanes involved the ne-

cessity of running towards a lee-shore with a wind from the south; yet rather than lose ground, as the weather was extremely fine, and I had great confidence in our resources, I determined on making the attempt. In effecting this, we had to pass within a short distance of the eastern extremity of the bay, and had a distinct view of the hills and valleys of the shore.

There were many rocks, more or less clad with a dark and russety herbage unenlivened by a single patch of green, and altogether as melancholy and repulsive as fancy could conceive. It was a place, in short, that even the sea-tired mariner would scarcely leave his ship to visit. The ice, it was gratifying to find, was entirely of last winter's produce; and, though sometimes close and thick, offered but a weak resistance as we bored our way through it. The tide also, which was flowing, lent us its aid, dispersing the ice so as to leave a clear lead almost to the farthest point in view. Just as we had got abreast of a large island, on which Sir E. Parry had landed in 1821, and were looking at a cairn erected, possibly by him, on its highest hill, we were informed by the look-out man from the crow's-nest, that a number of canoes had set off from a point of the island and were making towards us. It was some time before they were visible from the deck, but fortunately for them the breeze at

that moment moderating, between twenty and thirty Keiyaks and three Oomiaks came up with their noisy owners vociferating their accustomed "Tima" or "Chimo," and "pilletay," till we could scarcely hear each other's voices. These were clearly apart of the Saddleback Esquimaux, and began their traffic with the advantage of practised traders, determined to make the best of the market. Accordingly, no device or cunning was left untried by them; and in this respect, at all events, it must fairly be confessed, that they proved their superiority. They began by offering the most trifling articles first, such as seal-skin mittens and boots, of which many had already seen service, and some were actually patched; one pair of mittens particularly with old blue cloth, which, however, the eager purchaser did not perceive. When they were detected, their loud laughter showed how greatly they enjoyed the joke. Neither could they be prevailed upon to part with bags of oil, or any thing else of real value without something better in return than the old iron hoop, which was all that I would permit to be offered in exchange. The women, in particular, were more outrageous than I had ever observed before, for besides disposing of their garments, which they never hesitated to do, more than one actually offered to barter their children for a few needles. In the rest of their

dealings, habits, and manners, more especially as respects stealing, they fully verified the various accounts that have already appeared in print: for, though sentinels were posted at different parts of the ship purposely to prevent pilfering, and not one of them was allowed to come on board, yet so dextrous were they that, in spite of all our vigilance, they contrived to cut away two or three fathoms of rope from alongside the ship. When the crew had purchased what they required, wearied with their incessant clamours, I ordered the men on board, and bade our noisy visiters leave us. Some, and among them the women, obeyed, but many, principally young men, lingered for some time about the ship, singing, laughing, and shouting according to their several fancies.

Having passed the island and opened the North Bluff, a number of smaller and lower islands became visible above the ice, showing the place where Baffin had been in 1665. The wind fell as it had done for some days past, at the commencement of the ebb, about 3^{h} P. M., but the ship still going slowly a-head, without losing ground or being obliged to make fast to ice, cheered us with the hope of a satisfactory progress. The night was cloudy and calm, with sometimes a high flow of wind from different

quarters of the compass, and the ship more than once came round against the helm and drove close inshore. Fortunately the shore was bold and the water deep, but an immediate effort was made to get her round so as to be ready for the first air to stand farther off. At that time no lead could be descried from the mast-head, whence all in the direction of our course seemed to be one compact body. Nevertheless, when towards midnight a breeze sprung up from the south-west the studding-sails were again set, and, though we received an occasional hard thump, we had the consolation to find that we were creeping along the land; a low point of which, directly a-head, we were most anxious to get round, from an impression that a clear space would certainly be found to the westward of it.

The next day (August 6th) brought with it an increase of wind, which enabled us to bore through some heavy masses, one of which nearly carried away the fluke of the best bower anchor. The ship, indeed, struck with great force, breaking the smaller impediments and thrusting the larger ones out of the channel, so as to make a lane for herself; and having, at length, succeeded in rounding the low point already mentioned, and having found there, as had been anticipated, a clearer space along shore, we followed it, though not without difficulty. The

winter line of ice was very apparent along the beach, exactly as on the banks of lakes and broad rivers in the interior of America. The height was less than I should have supposed, and could not have exceeded thirty feet from low-water mark. It must, therefore, have been formed during an unusually calm season; for, even in these inland situations, a rise of full twenty feet is by no means uncommon.

We had a second visit from the Esquimaux, with the same noisy bartering, the same cupidity, and the same unnatural readiness to exchange their children for a few needles or a saw. Esquimaux, indeed, will give any thing to procure what they desire; a laughable instance of which was afforded by a young woman who, observing that one of the officers had not much hair on his head, immediately offered to supply him with her own at the easy price of a curtain-ring. The weather continued beautifully fine, with a temperature of 35°, and the water 32°; and, at noon, the latitude was 62° 39′ N. longitude, 70° 50′ W.

For the remainder of this day and the next we continued beating along the shore, wherever a lane of water was to be found; and such was the strength of the current which set us in the direction of our course, that, notwithstanding the impediments by which we were beset, and a wind for the most part heading us, we made

satisfactory progress. We received, it is true, some heavy thumps from the drift ice, but to these we were now become familiarised. In the early morning of the 8th, the wind having shifted more to the west, we were enabled to make a considerable advance; but, about nine o'clock, the scene was materially changed. We were abreast of the five hillocks spoken of by Sir Edward Parry, when, instead of the enlivening view of open water, which had just before greeted us, nothing could now be discerned but one firmly knitted pack of ice, stretching from the outer point of the shore as far south as the horizon, and forbidding even the hope of an opening in any available direction. The barometer, too, which of late had showed but very little variation, had fallen from 29° 87′ to 29° 54′, and the sky became dark and gloomy, snow fell, and the wind blew half a gale from the N. N. W. What small sails we had up were instantly taken in, and the topsails reduced two reefs. But all our efforts to hold on our course were unavailing; and as there happened to be a tolerably large berg at no great distance, I determined to make fast to it, as the only way of keeping to windward. Accordingly, having run to leeward, a boat was lowered, containing two ice-anchors and lines; and, while the most experienced of the crew were employed in fixing these in the berg, on its

shelving side, (for the other was perpendicular,) the ship made a tack, until, upon signal, she again dropped down and shot up to the very edge of the berg. Then, sending out two strong hawsers, which were affixed to the anchors, she soon became safely moored; and the sails were furled.

Here we lay, snugly sheltered from the gale, which now freshened, carefully watching however the slightest motion of the berg, lest, upon some change of its equilibrium, it should topple over, and so prove our destruction instead of our safety. Nothing however occurred to disturb us till about two o'clock of the following morning, when a heavy floe drifted against the berg, on the weather-side, with a violent shock. For some minutes it seemed uncertain whether the ponderous mass would not turn completely over; but, after many oscillations, a large piece was supposed to have broken off from the south western point, which, though it increased the agitation for a time, seemed to have restored the balance, and the mass again became stationary. During this suspense, it will be easily believed we were not idle; for, not knowing how soon we might be overwhelmed, the hawsers were instantly veered away to eighty fathoms, and careful hands stationed to cut the ropes in case the danger became more imminent.

As the day advanced the body of ice to windward was not found, as had been expected, to have undergone any favourable alteration; but it was consoling to find by the bearings of the land that we had rather gained than lost ground by making fast to the berg, and it was evident that, for the present, nothing better could be done than to remain where we were. In the mean time, as there was nothing to be apprehended for the safety of the ship, which lay extremely easy under the lee, the crew, for occupation, were exercised at small arms; and, considering that many of them had never had a musket in their hands before, they acquitted themselves very creditably. By the bearings of a remarkable hill, N. 94° E., it was clear that although we were certainly going slowly to the northward and westward, yet we were setting at the same time towards the shore. At 4^{h} P. M., however, there was an apparent re-action in the inshore body of ice, which now began to set about S. S. E., and, to avoid being hemmed in, it became necessary to cast off from the berg. Having done so, we went under as easy sail as the ice would allow between south and west; and, though we had now the mortification to behold, from the mast-head, a continuous pack, extending from what we took to be Broken Point to south-west, yet, by carefully watching such

openings as offered themselves, and making more sail on the ship, we succeeded in reaching a hole of water; beyond this however there was no outlet, and the ship was necessarily hove-to. At daylight, the wind having veered to the south-west, we bore up, and ran between the detached ice as near as we could, though not without many violent shocks that made the whole frame-work of the ship tremble.

We continued all that day laboriously boring our way through heavy streams of ice, or vainly endeavouring to weather the larger masses, under the disadvantage of a dense fog: but the ship at length received so many blows, and the ice closed so fast while we were continually drifting to leeward, that it would have been rash to have continued any longer the unequal and profitless contest. I therefore made fast, with an ice-anchor, to an adjoining floe, and, having furled the sails, employed the men in making a few necessary reparations. Soundings were obtained with one hundred and twenty seven fathoms of line, when the bottom was found to consist of green mud, the current then setting N. W. by W., one mile an hour. Some observations for the dip made on the ice, out of the sphere of the ship's attraction, gave 85° 54′. At daybreak of the 11th, not the slighest alteration was perceptible, except indeed that the north and west horizons

glared with refracted ice, now wedged into a compact body. At noon, I regretted to find we had drifted a few miles to the southward. Soundings were then got with one hundred and twenty-nine fathoms, and consisted of grey sand; with one hundred and fifty fathoms of line the current set E. S. E., at the rate of two miles an hour; but the lead being hauled up to sixty-five fathoms, an upper set was observed to be running north, about half a mile an hour. On the floes were found a quantity of stones and small fragments of rocks, with deposits of yellow mud and a few pieces of sea-weed. Some of the former were rounded by attrition, as if they had been exposed to the action of the waves on the beach, and were composed of sienite and limestone, with small crystals of quartz.

Towards evening the clouds gathered in the north and the breeze freshened, bringing with it occasional showers of snow, but without betokening a favourable change for us; and the following day the appearance to windward was most discouraging, for not a lane of water nor an opening could be made out. Accordingly, as the chance of advancing was diminished, it became important at all events not to lose ground; and a larger floe having drifted near, we cast off from our present holding, and made fast to it. It was now ascertained that the larboard bow had sustained injury, to the depth of three inches, from

the force with which the ship had struck against the ice in boring; and having careened her, the whole of the forenoon was employed in restoring it with plank and a sheathing of iron. At noon the observations made us six or seven miles to the southward of yesterday's position, but at the same time somewhat to the westward. We endeavoured to try the different dipping-needles; but after getting the instruments fixed, the ice was found to move too much in azimuth, and we were obliged to relinquish the attempt. The floe to which we were attached, seemed to have been formed by the pressure of many detached pieces together, some of which were uplifted ten or fifteen feet above the level of the general mass. Several pools of excellent fresh water were found on it; and this being a good opportunity to fill the empty tanks, the ship was warped alongside and with the assistance of the engine, the task was soon completed. The officers amused themselves with shooting, and bagged two or three brace of dovekies, which after being skinned and steeped for a time in water, were made into sea pies, and pronounced very excellent eating. They also endeavoured to kill some seals, which continually popped their heads out of the water with apparent curiosity, gazing stupidly at those who were about to destroy them. But though it is certain they were hit, and often on the head,

yet in no instance could they be secured before they sunk.

About 4^{h} P M., though it was still perfectly calm, the ice began to set past the ship to the south-east, at an unusual rate, and then, by a counter-movement, closed in around us so quickly as to compel us to move, by warping on the other side of the floe. A very light air then sprung up from the S. S. W., but gradually got more to the westward, accompanied as usual by a dense fog; and at nightfall it was remarked that young ice was rapidly forming between the stationary pieces.

On the 13th the fog still continued, and it had again fallen calm; but the floes near us being large and hummocky, we cast off from the ice, and sending a boat a-head, along such openings as could be found, made fast a line to projecting masses or hummocks, and so warped the ship to the north. A faint breeze from the right quarter fortunately came to our aid, and enabled us to make sail on the vessel, and dispense with this laborious substitute. The ice, however, was distressingly close and heavy, and no clear water could be seen in any direction. The weather indeed remained continually hazy, and so prevented us from distinguishing the right, or indeed any, lead beyond the distance of two hundred yards. My object was to force a passage to the

north, from a conviction that, as we got nearer to the shore, the influence of the tides would be more felt, and more open water thereby created, or at least that the ice would be lighter: for such heavy and extensive masses as we now encountered were contrary to the experience of all who had gone before us, and I could only suppose that the ice had not been broken up at all last year, but, having come down in a body, created our present impediment. At noon the latitude was obtained on a small floe, and made us within a mile of yesterday's situation. The sun shone brightly through the mist; and though, owing to the radiation of heat from the decks and bulwarks, there was no perceptible dampness below, yet the rigging aloft was coated with fine icy particles, which, being viewed from the crow's-nest, presented the appearance of a prismatic halo resting in the concavity of the fore-topsail. The wind at length freshened precisely as we wished it, and the ship, with her studding-sails set, bored between masses often more than half a mile in length, resisting the pressure, and driving pieces before her in a manner perfectly surprising, and no sooner had she made a way for herself than the icy portals closed firmly, and, as it seemed, impassably behind her. At length the entire body ahead looked like one compact hummocky field, streaked with a few dark lines

of unequal breadth; boring through which, we seemed to be, as it were, ploughing a furrow towards the north. Advancing in this manner, I was glad to see that there was, a few miles off, ice of a looser kind; and no effort was left unpractised to reach it. Just as we were on the very point of succeeding, two floes were attracted, or driven by a current together, and effectually jammed us in. Happily the breeze at the same moment freshened; and, after some delay, in which the floe of last winter's formation began to crack and yield, while that of the previous season remained firm as a rock, the ship, breaking a large mass away and forcing it before her bluff bows, cleared a passage through. It would be a tedious repetition to relate all the trouble and anxiety that we experienced in forcing through the heavy barrier, which, I am of opinion, hangs about this part of the strait from the influence of opposing currents issuing, the one from the north, probably through the opening formed by Broken Point, and the others from between the islands to the south. The influence of the same barrier, I apprehend, aided by easterly gales, produces the interruption occasionally met with by the Hudson Bay ships on their homeward passage, and which but a short time ago compelled them to winter in the country. However this may be, we were heartily

glad to get out of the thick of it, which, though still hampered on every side by small floes and drift masses, we now considered ourselves as having achieved. As we advanced to the north-west, the lanes and holes of water increased; but the weather continuing hazy, with intermittent showers of snow, and the night gloomy, and consequently darker than usual, the smaller sails were taken in, and, running securely under top-gallant sails, we kept on a devious course through the ice.

Early on the 14th, during a partial clearance of the clouds to the west, some of the people fancied they saw land, which, according to the bearing, could be no other than Salisbury Island; and, in the forenoon, the wind then blowing fresh, land was reported on the lee-bow, which our reckoning made the north coast of the strait, in longitude 76° 50′ W., to the eastward of the Nottingham Island of Sir E. Parry, or Mill Islands of Arrowsmith. It was evident therefore that our progress had been very favourable; and, if a passage were to be effected this autumn, I felt assured that we were now in the best channel for accomplishing it. Having stood within three miles of the land, the ship was put round, and directions given to work to windward along shore. The first appearance which the coast presented was a round-backed hill,

which, as seen through the haze, seemed isolated, but as we neared it proved to be part of a low island. There were several others almost in a line with it, all presenting the same sombre aspect which characterised the coast generally, except one, which was relieved by a light yellow colour as of sand, but which, on inspection with a telescope, was found to be rock. The land behind the islands was tolerably high, and bold, broken into bluffs and points, and, from its indented shape, probably formed some good harbours.

The ship was now going at the rate of five knots through the water, when two Esquimaux kieyaks were seen endeavouring to overtake us; presently the wind becoming more fair the studding-sails and royals were set, and the speed of course increased. The poor Esquimaux nevertheless paddled away with all their might, and finally succeeded in coming up with us, though almost in a state of exhaustion. They had little to offer except the horn of a narwal; and, after receiving a few bits of iron hoop, they went away but ill compensated for the fatigue which they had undergone.

About 6 P. M. the weather became very thick, and snow fell so abundantly as completely to cover the decks and boats. The wind also changed to the north, so that we could no

longer lie our course; and, not knowing exactly how near Mill Islands might be, or, from the amazing difference in the variation, whether we might not be actually standing on them, the small sails were taken in and the topsails reefed, and, with the anchors ready to let go, we proceeded with the utmost caution. That we were near to the land was certain, but none could be distinguished through the haze, either to windward or leeward, and we literally groped our way in much uncertainty, and not without some anxiety. The wind also increased to such a degree that the ship was put under snug canvass, and, for the first time since leaving the Atlantic, there was a regular sea, and consequently no continuous ice. The next morning brought no change for the better, for the wind was accompanied by snow, and that, with the haze, so embarrassed us, that it was difficult to determine in what direction to proceed. However, when daylight broke the ship was put about; and we had the pleasure of seeing that the head sea which tumbled us about was at the same time fast reducing the ice into fragments.

About 7^{h} A. M. land was discovered, forming a semicircle to windward, and which, guided by the log, we conjectured to be Seahorse Point of Baffin, on Southampton Island. The distance certainly seemed rather more than the ship was

in the habit of accomplishing; and what added to the uncertainty was, the incomprehensible manner in which the islands had been passed (if passed at all) without having been seen. The mountains — for such they appeared through the haze — were nearly covered with snow, the effect of the preceding night; and some small islands could be indistinctly made out. Our course was held parallel to them, in the hope, rather than the persuasion, that they would terminate in the point which was to lead us to Frozen Strait; but, about 11^{h} A. M., we suddenly found ourselves embayed, and, from the still prevailing murkiness, had barely time to get the ship round; when it was indisputably ascertained that the coast tended far to the east. Under these perplexing circumstances, I determined not to incur any risk which might endanger the safety of the ship, and directed her to be kept, under easy sail, close under the lee of the high land just mentioned, until the weather should be clear enough to justify me in acting differently. It was fortunate that I did so; for, having obtained the latitude at noon, and the longitude soon afterwards, we found, much to our astonishment, that we were not near Southampton Island at all, but had been deceived by great deviation in the compasses, and a powerful current, which had driven us along the eastern side of Mill Islands, and thence to the main shore of the strait, where

in fact we had been embayed. However, we must have passed between the islands during the night, though how, or in what direction remained a mystery; and we were thankful, as we had reason to be, for our happy guidance among them. In the afternoon the sky became more clear; and it was then apparent, that though under a press of sail, we could not stem the current, which at that time (7^h P. M.) was carrying us bodily away to the south and east. The variation of the compass with the ship's head N. W. was found to be six and a half points, but when N.E. only three and a half. At 10^h P. M. we were to leeward of our afternoon's position, and stood in again for the main.

After beating about between Mill Islands and the north shore all night, we found ourselves in the morning, the 16th, still to leeward of the former, and utterly unable to make head against the current. Near noon, being then within a mile of the shore, we could perceive a strong race, within which was an eddy sweeping the ice about in a furious manner. At the line of its junction with the regular tide there was a fall produced of at least three or four feet, which hid all but the upper surface of the ice near it. My object had been to get close in shore, from an impression that we should be less opposed by the current there than further out; but, as either

current or tide was now driving us fast towards the land, it became necessary to tack, and try our fortune once more in the offing. It was evident that no ordinary cause could thus have detained us two days with a commanding breeze; and I began to think that nothing but a fair wind would release us, when suddenly the ship took a start, and just as unaccountably went away in mid channel, hurrying us in a short time abreast of the Trinity Isles of Fox. The north shore was partially covered with the snow that had lately fallen; all that could be seen consisted of solid and barren rock, entirely destitute of herbage, or, as far as I could judge, of any thing capable of supporting life. Not an inhabitant, nor even an animal or bird was seen.

By 4^h P.M. the islands were upwards of ten miles astern, when the breeze left us, and we obtained soundings in one hundred and twenty-three fathoms, the bottom consisting as usual of blue mud. Soon after we had snow, and the barometer began to fall. Hardly had the necessary reduction been made in the sails, when the wind increased to a fresh gale, which speedily brought us to the edge of some heavy ice. The whole of the night was occupied in endeavouring to twine our way through it; and although in the morning of the 17th, from its detached appearance hopes were excited that the interruption would not be of long con-

tinuance, yet the favourable breeze soon brought in sight an enormous floe, the extremes of which were lost in the driving snow and mist. Unwilling to try the north end of it, as that would have led us again to the eastward, in which direction it trended as far as could be discerned, I determined on running along its lee side. This was almost in the direction of our course, but, as it turned out, conducted us into a labyrinth, that might have been of serious consequence had the wind at all abated; for, after sailing for some time, we found ourselves between two floes of unknown extent; and though if the weather had been clear we might perhaps have found a passage, yet with every thing dark a-head, and the liability to be nipped by the closing of the ice, no such chance could be trusted to. Not a moment therefore was lost in worming our way back, which after some trouble and anxiety was accomplished.

An attempt was then made in another 'lead', which only guided us to a solid pack; so that, baffled at every turn, the ship was for a time hove-to. As soon as the weather cleared—which it did with a change of wind, directly contrary to our progress, but the very best for separating and clearing away the ice—we took the only course left to us, and beat to windward, towards a narrow opening, which it was thought might possibly offer a channel. Snow

had fallen, which, after being partially thawed on the decks, was there solidly frozen — a result to be expected with a temperature of 29°+. Land was supposed to have been seen, in the direction of Southampton Island; but, in the absence of good observations, no reliance was placed on the report. Persevering in plying to windward, amongst the heaviest drift ice I had ever beheld, it was not without great difficulty, and at a great sacrifice of distance, that the innumerable masses surrounding us could be steered clear of; nor was this always the case, since, in spite of all our care, the ship would sometimes drive on them with a concussion that made all the bells ring, and almost threw those below from their chairs. Two whales, the first seen since our arrival in these latitudes, excited the curiosity of the novices, but did not produce among the Greenland sailors the enthusiasm which I remember to have observed with much pleasure on a former occasion. At that time they ran up the rigging, and followed every motion of the whale with the most unequivocal symptoms of delight; and one of their number, unable to contain his joy at seeing the monstrous creature heave its bulk partly out of the water, cried out in ecstasy, "There she goes, my boys, tail up for Greenland." The next morning two other whales were seen.

The remainder of the day was employed in

the tedious manner already described; and in the night the ship, having little head-way, ran against, or rather dropped broadside on, a floe, from which she could not be removed without the aid of a warp, which was accordingly carried out to a projecting point. The land of Southampton Island was now distinctly made out, bearing by compass N. W. $\frac{1}{2}$ N., but far away. Both compasses were more than commonly sluggish, and required constant tapping; a phenomenon which was observed to be more palpable with the ship's head west, than on any other point.

The next day (August 18.), after beating to windward slowly till noon, the ice became so close that there was but one hole of water to work in; nearer the land, which was now visible from the deck, looking like blue hills, it appeared to be somewhat looser, but as it was not sufficiently so to allow of our reaching it, we were compelled to go wherever the least chance of an opening presented itself. At length we came to a solid and unbroken pack, of such fearful extent as to throw a sudden damp on our hopes. It looked, from the crow's-nest, as if it were joined to the land, and stretching thence, west and north, glared in one undivided mass to the utmost limits of the sight. To the south and east the prospect was little better, rendering it doubtful whether, in a case of necessity, a passage

could have been found in that direction. The most experienced of the seamen (many of whom had spent their lives in the Greenland trade) declared they had never beheld such heavy ice, and were confident that it had never been broken up. To me, however, it seemed to consist of numerous floes, but so wedged together as to be utterly impassable, not only by a ship but in any way; for so ragged and piled up was the entire surface, that the height of the ridges frequently exceeded fifteen feet, and no human being could, by any exertion, have travelled over it for more than a short distance. To those who were unaccustomed to polar navigation nothing could be more discouraging; for it required more than ordinary strength of mind not to be persuaded that, in this direction at least, a limit was now put to our progress. Those, however, who had experience of the singular uncertainty of the navigation in these seas, looked forward to the accidents of the coming night — the change of wind, the tide or current, or some of those unaccountable circumstances which, in a few hours even of entire calm, create so sudden and marvellous a change in the scene. Still, it was a situation to call forth our most active energies; and, though resolved to persevere by this route as long as the remotest chance was offered of success, yet I could not conceal from myself the

striking difference of the season which Sir E. Parry had experienced in passing through this channel, where he speaks of the weather as fine, and even mild; whilst we, on the contrary, were regaled with constant snow, and had the thermometer at 28°+. We soon worked through the remaining part of the open space; and all speculations of the chance of a further progress being at an end, the ship was made fast to the floe. At the same time, soundings were tried for with three hundred fathoms, but without effect.

The night was cloudy, and almost calm; but shortly after midnight of August 19th, many large pieces of ice, near the pack, were observed to be drifting away to the south-west, at the estimated rate of half a mile an hour; and at 3^h 30° A. M., finding we were likely to be hemmed in, the ship was cast off from the ice, and, by means of lines carried out and attached to projecting masses, warped towards the north-east, where alone there seemed to be a lane of water. In an hour the desired spot was gained; and, as there was every appearance, from the darkness of the sky, of a continued channel, sail was immediately made on the ship, and, to the surprise and joy of all, the impediment was found to have yielded to a greater power, and a path opened through what seemed an impenetrable barrier. Such are the strange incidents of polar navi-

gation, which, though less striking than the wild commotions of the earthquake or tornado, are at all events calculated to excite equal gratitude to that merciful Providence whose protecting care is over all his works, — in the icy waste no less than in the thronged city. For two or three hours the sun struggled in vain with the mist, which enveloped sky and ice, still we met with no hindrance ; and, having made a few tacks to avoid the large drift pieces, at noon we were still advancing to the north, the latitude, as obtained on a floe, being 64° 57′ N., the variation 52° W. At length however the mist dispelled, and with it the hopes in which we had been indulging. A glance satisfied us that our further progress would be very short. The breeze had died away, and allowed the ice to pack afresh. Not a lane, not a hole of water was to be seen in any direction but the one just passed ; and again, most reluctantly, were we compelled to secure the ship to a floe.

August 20th. Though the night was generally calm, yet a motion in the ice, and the suspicious approach of a large floe, which seemed to threaten a squeeze, induced us to cast off and warp a little to the south ; where we once more made fast to the same extensive piece of ice. The morning gave no sign of a favourable change, and the crew were exercised,

on the floe, in firing at a mark. About 11^{h} A.M. an attempt was made by hauling the ship to an outer point of the floe, and making all sail; but the light air was very faint, and she barely glided through the water. Observations, at noon, gave the latitude 65° 0·1′ N., longitude 80° 44′ W., and variation 57° W.; which was so far satisfactory as showing that no ground had been lost. The compasses continued to be very sluggish; indeed so much so, that, on one occasion, the larboard one showed the ship's head to be *south*, while that of the starboard made it *north*. The wind soon died away altogether; and none springing up, as had usually before been the case, with the declining sun we again moored to a floe for the night. The men amused themselves by a riotous game of leap-frog on the ice; and the disaster of one of the officers, who, in crossing a point covered with snow, fell through and took a cold bath, excited a hearty laugh.

During the night, which was perfectly calm, young ice formed entirely around us. A month later this circumstance might have given me some uneasiness; but now it was deemed of consequence only as adding to the delay and abridging the time which we hoped to employ in the more interesting objects of the expedition. Unless, indeed, this season were to be very dif-

ferent from all others recorded of the climate, I felt assured that the customary westerly winds would sooner or later prevail; and that, under their influence, the body of ice which now interrupted our progress would open a passage for us. None, however, were insensible to the annoyance of our position, thus hampered, and as it were fixed in a bed of ice; and a burst of joy followed the announcement, from the 'crow's-nest,' of an appearance of water towards the N.N.E. By warping and hauling till we reached the 'lead,' and then carrying studding-sails till we had exhausted it, some little way was gained; and at noon, though the latitude was much the same as yesterday, the longitude differed. Through the remainder of the day we went on struggling with the ice, tacking continually to weather or avoid the floes, and praying for a breeze, but praying in vain. A few whales and narwals alone relieved the monotony of the scene; and night found us again attached to a floe, and lying motionless and dark on the bright bosom of the icy wilderness.

About 2h A. M., August 22d, a light air came from the north-west, of which immediate advantage was taken; and leaving the floe, we got, by the aid of warping, into a 'lead.' Studding-sails were soon hoisted, and the ship was forced through the close ice for a time, and thus soon

again obliged to have recourse to the lines, was at last brought into comparatively open water. The conduct of both officers and men in this arduous and irksome service deserved all praise; and their exertions were not altogether without reward, for the land supposed to be Cape Comfort was evidently further off; and, at noon, this conjecture was confirmed by the increase of latitude, which was 65° 25′ N., the longitude being 81° 0·8′ W. Hitherto my endeavour had been to follow the leads, in the hope of being brought out into open water; but now, as none was in sight, I determined on steering directly towards Frozen Strait, and, singular to say, the ice opened as we advanced, though but half an hour previous it was tightly pressed together. As the day drew in, the southern horizon became dark and cloudy, sending what had been long ardently desired, a south-west wind. The effects of this were soon conspicuous in the ice ahead, which now began to part into holes and lanes, and encouraged a hope among the more sanguine that we were, at length, near the edge of that vast body which had so long detained us. It was remarkable that the whole of the ice, whether detached or compact, floe or drift, was of a dirty ochrish colour, totally unlike any which we had seen before, and must therefore have been close to the land. The middle of the night being

now dark, we necessarily ran foul of many a piece of ice, and got some violent knocks; but, depending on the strength of the ship, I could not forego the pleasure of pushing on while a chance remained, and we continued to thread our tortuous way as well as the faint gleam from the ice allowed us to pick it out.

It was with considerable satisfaction that, at 4^{h} A. M. of the 23d, I heard the announcement of Baffin Island bearing N. N. W., and shortly afterwards that the land of Southampton Island was made out to the westward. Had there only been a channel, even as wide as a brook, we should soon have got to the strait; but the scene around us now presented an apparently solid sea of ice, thrown up in many parts to the height of eighteen feet, and so ragged, peaked, and uneven, as to bid defiance to any attempt even to walk over it. Had it been composed of mere drift-ice, which is invariably detached by a strong breeze, there would have been more encouragement; but the limits of the enormous floes surrounding us could not be discerned, and it was absolutely marvellous that we should be able to penetrate it at all; yet, at noon, we were still moving slowly; and the observations (for the weather was beautifully clear) gave the latitude 65° 42′, longitude 82° 41′ W., variation 49° 52′ W. The southerly wind now freshened,

and, despite of increasing obstacles, we continued to gain a few yards. Warping was next resorted to; but at last all failed us, and at 3h P. M. we were compelled to give up the attempt as utterly hopeless. Cheerless, indeed, was the prospect; for, excepting within a few feet of the ship, where the black streaks of water looked like inky lines on a fair sheet of paper, far as the eye could reach all was ice. Soundings were obtained in one hundred and two fathoms, and showed a muddy bottom. The tide had little or no effect here; but about 7h P. M., a large floe having exhibited symptoms of moving round so as to nip us, the sails were again hoisted, and the ship forced ahead about her own length, when immediately the small opening we had quitted was closed up. It was evident that we were equally secure under canvass as without; and as it was possible that so long as the ship could be kept the right way something might be gained, we kept the sails full, and at long intervals she moved some twenty or thirty yards, and again stopped. As the breeze grew fainter more sail was set and still forced her onwards; but at day-break of the 24th, no change taking place, we were once more set fast, and after two hours' warping, and wedging the ship next to a large floe, which had been seen ahead, we found ourselves instantly hemmed in by the surrounding

masses. Baffin's Island was yet in sight, about twenty-four miles off; but we had drifted a little to the north of it. I may remark here, that having procured some of the yellow-coloured snow, it was found to be caused by innumerable small grains of earth; a convincing proof that the immense quantity passed must have been in the immediate neighbourhood of the shore, and had, in all probability, drifted down from the north.

No other alteration occurred during the day than the setting of the whole body of ice to the eastward, though at too moderate a rate to carry us far away; but about 3^h of the morning of August 25th, the masses around us seemed something more apart; and after some warping, which brought us to the edge of a floe, where, as is generally the case, the ice was less pressed together, we made sail, and "bored" through towards the south-west, in the hope of getting nearer to Southampton Island. The wind, however, on which we depended, veered more to the eastward, and at the same time becoming lighter, allowed the ice to pack again; so that, after many fruitless trials, we were forced to desist, and soon lost all traces of water. The weather was and had been for some days past extraordinarily fine; the thermometer at midday being 42°+, in the sun, and 36°+, in the

shade. The hours were passed in a feverish state of excitement, and many an upward glance was cast at the little vane at the mast-head; but all was calm, and the wonder was, not how we were to get on, but how we had contrived to get here. Towards evening a light air, together with a "slack" among the ice, allowed a trifling distance to be made; but at sunset we were stopped near to an extensive floe, where, from the effects of pressure, some ponderous masses had been heaped up, like Titanian ruins, to the height of thirty feet. The land, blue from distance, and beautifully soft as contrasted with the white cold glare of the interminable ice around, reflecting by the setting sun the tints of the intervening masses thrown into the most picturesque groups and forms — spires, turrets, and pyramids, many in deep shade — presented altogether a scene sufficient for a time to cheat the imagination, and withdraw the mind from the cheerless reality of our situation. It was past 4^h A. M. of August 26th before the ship could, even by the use of warps, be forced ahead; and then wearisome indeed was the task. A mile at the utmost rewarded our exertions; and the wind having veered round more to the north-east, the entire body of ice swept down upon us, and the imminent peril of being nipped was only avoided by the cativity of the officers and crew in heav-

ing the ship into a sort of basin, formed by two projecting points of the nearest floe. Here we were again set fast. A summer's day, with the thermometer at 44° + in the sun, and a bright and cloudless sky, made us deplore more than ever our mortifying detention during weather so advantageous for work along the coast with our boats. But not the slightest improvement took place in our condition; though at long intervals the mournful crashing of the young ice, as yielding to the larger masses it was thrown up in solid foam, gave token that all was in motion. There was no wind, and evidently but little tide or current, for the bearings and distance from the land remained nearly as they were yesterday; still there was an occasional stir, and the pressure against the ship was decidedly increased. About midnight, though still calm, this became more perceptible by additional pieces of ice being squeezed against the bows and between the larboard side and the floe to which we were secured, producing thereby a heavy strain on the hawser, and threatening to force the stern against what had hitherto been a security, a projecting point. Another strong hawser was therefore carried out and fixed to an ice-anchor ahead, and being hove tight by the windlass, materially relieved the strain upon the other. Preparations were, at the same time,

going on to unhang the rudder, which, in the event of the ship's coming astern, must have struck the floe and been carried away.

Until past 1 A. M. (August 27th), we remained in suspense, which was then relieved by the ice returning again to its former position, and giving us an opportunity to warp closer to the floe. An attempt was made to remove some of the smaller masses from between the ship and the floe; but notwithstanding repeated trials with all the resources in our power, we were completely baffled. Strange too at this late season, the breeze once more came from the south-east, though the height of the barometer indicated a totally different result; and there was no hope for us until the faithless wind should round to the north-west. During the whole of the day and following night, the breeze blew freshly. Four white whales were seen playing about sunset in a pool ahead, and remained undeterred by our cries, apparently enjoying the only breathing place for many a league around. In the night there was a great pressure against the bows, and a severe strain upon the hawsers. In the morning of August 28th this abated, but in its stead the entire body became more closely packed than ever; and the ship, having to bear a great resistance from the upturned pieces against her

sides, gradually lay over to starboard, being, in the technical phrase, slightly nipped.

I had thought it not unlikely that the force of the wind might possibly have turned round some of the heavy remote ice, and thereby have left a little clear space for the removal of that near us; but it must have been wedged against the coast or among the islands which were visible (Winter Island among the rest) from the crow's nest. Appearances, indeed, were more unpromising than we had yet experienced; and our devotions of that day (for it was Sunday) were tinged with an humble hope that we should shortly be released from our anxious situation. Rain fell occasionally, and towards evening the wind veered round to the south-west, directly off the floe, affording one other chance of removing the ice along the western shore, if any unoccupied space were left in that quarter. The effect on the ship was sensibly felt by her being forced more over to starboard; and during the early part of the night, she was lifted up by the stern in consequence of several loose pieces of ice having got under her counter. On the following day (the 29th), the strain on the hawsers was as much as they could bear; and as little or no motion could be detected in the ice, it was attributed to the tide or current, which, however, scarcely altered our position.

W.H. Smyth del.

L. Haghe Lith.

H.M.S. TERROR BESET IN FOX'S CHANNEL.

London, J. Murray, Albemarle Street

Hagh Haghe Lith.r to the Queen

In the forenoon the barometer had gone down unusually low; and as on former occasions this had been invariably followed by a southerly breeze, the same result was apprehended now; much to our relief, however, the wind blew with some strength from the north-west, bringing with it a prospect of release; and though, packed as the whole body south and east of us was supposed to be, this could only be a work of time, yet sanguine ideas were immediately entertained of yet reaching our destination early enough to do something this season. At noon, according to the observations, we were within two miles of the same spot; but the effect of the wind was shown by two or three partial openings near the ship; and, as early as 5 o'clock, a general movement of the ice began. It came from the westward, and immense quantities skirting the extremity of the larger floe to which we were secured, and bearing down close upon us, were there caught within the circle of an eddy, and shortly swept away to the eastward. It is needless to say with how much pleasure so joyful a sight was hailed, and how sincerely we prayed that both the cause and effect might continue until a passage should be cleared to the Frozen Strait. The night was dark, with frequent squalls and snow; but on the morning of the 30th, the ice was found to be still drifting in the same

direction, and the pieces were thought to be considerably smaller and lighter; still there was no continuous 'lead' of which advantage could be taken. As the day advanced, and the breeze became more southerly and moderate, little further effect was produced on the ice. At noon, the observations made us rather to the southward; and as the ice appeared inclined to return from that quarter, and the wind was drawing gradually to the eastward, it was necessary to make sail and get as far as the openings would allow. This was speedily accomplished; and, with much trouble from the closing of the ice, we contrived to gain a mile or two from the floe, which had been left, and found ourselves again brought to a full stop, and in a more awkward situation than before. Warps were immediately put into requisition; and with the aid of the capstan the ship was wedged between the opposing masses, until finding less obstruction the sails once more pressed her onwards. The severity of the shocks as we encountered the ice, notwithstanding our familiarity with them, was on this occasion absolutely startling. But there was no help for it, nor any other chance of getting on; for the channel we ploughed before us closed ere the ship had gone twice her length, and cut off all retreat, even had retreat been thought of.

To complete the catalogue of annoyances the

breeze veered directly east, and came charged with abundance of snow, which fell incessantly, and filling up the hollows and crevices of the ice, baulked the sight by an appearance of uniformity. As the wind was fresh, we might possibly, with the advantage of daylight for selecting the right 'leads,' have got well in with the land; but this the night frustrated, and having pushed on till 10 o'clock, P. M., we were unable to get farther; still the topsails and foresail were kept hoisted and set, in the hope that on the turn of tide an opening might be made.

August 31st came, but with no friendly aspect, for snow fell thick and fast, and the thermometer sunk to 26°+, accelerating the formation of young, and serving to cement the old ice, in an alarming manner. However about 4 A. M., a kind of 'slack' was observed, and, after four hours' labour, it was conjectured that one mile of distance had been gained. Then being again stopped, and not a pool of water in sight, the sails were partly taken in. The hour arrived when it was expected that the tide might have some beneficial effect in loosening the wedged masses, but arrived in vain: so the useless sails were furled; and in the midst of increasing snow, and the worst and dreariest weather that could have befallen us, we submitted in silence to what no human power could control. At sun-

set the sky became clear, and Baffin Island was seen bearing N. 87° W., and a hill on Southampton Island S. 41° W.; a water sky * too was reported to the south-west, but scarcely succeeded in again cheating us into hope. The night was more than ordinarily cold, for the temperature of the air was only 19°+, and that of the water 23°+: an omen as gloomy as unlooked for at this early season, when Sir E. Parry, in the same latitude, was enjoying almost the warmth of summer. But the startling fact could not be concealed from ourselves, that the rigour of a precocious winter was thrust upon us, at the moment when we were almost in sight of our port.

* Produced by the dark vapour from the water, and used in opposition to "ice-blink."

CHAP. II.

Steer for Southampton Island. — Conjectures respecting the Ice. — Islands. — Pressure of the Wind. — Ship immoveable. — Cutting away the Ice. — Snow. — Drifting towards Land. — Accident to Rudder. — Aspect of contiguous Coast. — New Moon. — Recreations of the Crew. — Chase of a Bear. — Hawser carried away by Ice. — Icebound in sight of Land. — Wind veers to South-west. — Prospect of Release. — Hopes disappointed. — Ship driven nearer Land. — Mr. Gore shoots a Fox. — Ship in extreme Peril. — Frightful Increase of Pressure. — Providential Delivery. — Exploring Expedition. — A Dock cut in the Ice. — Consultation of Officers. — Rapid Destruction of the Floe. — Bow of the Ship split. — Hopes of progressing baffled.

THIS detention, so irksome to the officers, though, as it seemed, little regarded by the men, continued throughout the forenoon of the 1st September, the observations at noon showing no perceptible difference in our situation, which, considering the manner that the Hecla and Fury* were whirled about in the same place, is another proof of the capriciousness of polar navigation.

The wind, however, gradually drew round to the westward of north; yet, though tolerably fresh, it was long before it made the smallest impression on the ice. At last at 5 P. M. the

* See Parry's Narrative.

cemented masses near us suddenly broke asunder, and disentangled the ship from the thin crust that had surrounded her. This change, which was evidently the effect of the breeze, was gratifying, as showing that three days' continuation of it would, in all probability, clear the whole of Frozen Strait, and, as it was, a clear channel on the following day was confidently anticipated. During the first part of the night, the wind continued to blow freshly; but early on the following morning it moderated, and the ice at once returned to its former position; yet again, about 6 A. M., with unaccountable eccentricity, the entire body half a mile round was in agitation. Prompt to seize the lucky moment, we warped to a spot where the sails could be advantageously used, and, contrary to all the expectations of but an hour before, found ourselves making headway. As the day grew clearer the same dark-bluish grey clouds were observed in precisely the same bearing as had been noted two days ago, strengthening the opinion already expressed that they were the certain signs of open water. Fortunately the 'leads,' narrow and hampered as they were, took a direction towards the desired point, and allowed us to hold a course directly for Southampton Island, which I was the more eager to attain, from a conviction in my own mind that a passage existed along shore, close in

with the land. Hitherto, indeed, every attempt to approach it, since leaving Mill Islands, had been thwarted by consolidated bodies of intervening ice, but at the moment this was not regarded. It was the opinion of Sir E. Parry, that the ice adheres to the shores of the continent and Southampton Island, unless blown off by a strong breeze; and in this opinion I entirely concur as applicable to the appearance of ice there in ordinary seasons; but in our case it was obvious that some other explanation was to be looked for of the extraordinary impediments by which we had been beset. To me it seemed almost certain that the great body of ice had not been broken up at all in the previous year 1835, and that having, with the accumulations of the following season, been detached from its bonds by the storms of the spring, it had been driven, probably by the combined action of the wind and current, from the bays and harbours of the north to the place where we found it. That there were two distinct kinds of ice could not be doubted; since the most cursory observer could not fail to remark that the one was massive, old, and irregular, with huge piles tossed up in picturesque confusion — the other light, clean, and comparatively smooth. The time too which had been consumed amidst the labyrinths of the old ice, with so trifling a change of

situation, convinced me that any further delay among it would be fatal, and all these considerations made me, as I have said, most desirous to close in with the land.

With this object, and a favourable wind, we 'bored' the whole of the forenoon through the lighter kind of ice, making occasional circuits as the accident of shape required. Still no water appeared, though the Greenlandmen did not lose their faith in the dark clouds which yet hung upon the skirts of the horizon, seeming to recede as we slowly approached them. The fresh foot-prints of a bear which had crossed the ice within the last twenty-four hours was the novelty of the day; and a goose was seen where perhaps none but a goose would have been seen. At noon the difference in longitude amounted only to four miles; the latitude remaining the same. Indeed, by the increasing closeness of the ice, the difficulty of advancing in any direction was becoming hourly greater. For some time we were entirely stopped; but by keeping a press of sail set, and with the aid of a freshening N. E. breeze, we forced our way by a few hundred yards at a time, proceeding in this manner with little variation until midnight. The wind then increased considerably, compelling us to take in sail; but that which, under more favourable circumstances, would have facilitated, now only

served to impede our progress, for the strong breeze packed the ice. September 3d brought a cold and chilling day, with a temperature of 25°+, and a surface of young ice on all the pools around. Every attempt therefore to move was as useless as laborious; and, after carrying away a warp in trying to change the situation fifty paces forwards, we were obliged to yield to necessity, and desist altogether. The sails were taken in; and our stock of fresh water being almost exhausted, the crew were employed in refilling the tanks, a task which was completed in the forenoon. The sky, which had been dark and hazy towards the land and to the eastward, had become clearer, and enabled us to see Southampton Island somewhere about Cape Comfort, which was high and much covered with snow. On this side of it, and within perhaps twelve miles of the ship, Fife Rock was also visible; while far away to the eastward of North, was Baffin Island. In fact, after all our labour, we found by the observations that we had only got twelve miles to the south.

A Burgomaster, or Glaucus gull, was seen; and a golden plover, blown off the shore by the force of the wind, was shot. Towards sunset several pools of water were formed, one of which, on the lee-bow, was of some extent. That nearest

to us was, for a few minutes, an object of attraction, owing to the sudden appearance there of three or four white whales.

It now blew a fresh gale, accompanied by squalls, and though cold, the weather was clear. On trying an anemometer, kindly lent to me by Mr. Rice of Chatham dockyard, the pressure on a square foot of canvass was found to be equal to four pounds. The night brought no change; but, on the morning of September 4th, we were glad to perceive that the ship, and consequently the whole body in which she was beset, had drifted much nearer to Southampton Island, which was now visible from the deck. We had also passed Fife Rock. The frost, however, was so severe that a hole was obliged to be cut alongside to draw water from. As this was Sunday, after the usual muster at divisions, Divine Service was read, with an appropriate sermon, which was listened to with becoming attention, and as I hope and believe, with the devotion befitting the perilous uncertainty of our situation. At noon, the observations both by lunar and chronometer made us a little to the east in longitude, and the latitude showed that we had been set fifteen miles south, the distance from Fife Rock being west five miles, from Southampton island about twenty-four miles, and from Repulse Bay

not more than one hundred and thirty-six miles; so that with but a moderate share of westerly winds to open the ice from the land, there was still good reason to look forward to the accomplishment of the passage before the close of the season, though the thermometer was as low as 20°+ in the night, and but 27°+ during the warmer part of the day. Some hours elapsed without the slightest variation in the ice, but at 6^{h} P. M. an extraordinary movement took place, which with astonishing celerity dispersed it inshore so much as to leave a wide and long lane, and we were not without hope that a branch of it might even have reached us. Not, however, that we waited for such a consummation without putting our shoulders to the wheel; for, besides the sails well filled with a fresh breeze, our strongest hawsers were fastened to the ice, and then hove round by the capstan. The united force was of course very great, and no device was left untried to heave the ship ahead; but so firmly had the 'sludge' been frozen quite round the bends, that all our efforts were unavailing, and not an inch could we stir her. To see open water within one hundred yards, and yet be unable to reach it, was a type of the torment of poor Tantalus: but so it was, and there was nothing left but to sub-

mit. The sails were furled, and the ship again thrown on the chances of what might befall

The wind decreased during the night, and at daylight of September 5th there was a calm. We found also that we had drifted considerably nearer the land, which was high, and thinly and partially covered with snow. Fife Rock was just visible to the north. Lanes of water were seen at different points of the compass along shore; and, though they were rather far apart, and of no great extent, the usual trial was made to reach them, but again without success. The last resource therefore was adopted. The whole of the officers and men were despatched, under the orders of Lieutenant Smyth, to the only open water at all near; and with axes, ice chisels, handspikes, and long poles, began the labouring process of cutting away the 'sludge' that bound the pieces together, and removing them into the clear space. In this service they were frequently obliged to fasten lines to the heavier masses and haul them out; and, though slipping and tumbling about, yet the light-hearted fellows pulled in unison to a cheerful song, and laughed and joked with the unreflecting merriment of schoolboys. Every now and then some luckless wight broke through the thin ice, and plunged up to his neck; an-

Capt.n Smyth del

L.Haghe Lith

THE CREW OF H.M.S. TERROR, BREAKING A PASSAGE IN THE ICE.

London, J. Murray, Albemarle Street

Dav.d Haghe Lith.r to the Queen

other, endeavouring to remove a piece of ice by pushing against a larger mass, would set himself adrift with it, and every such adventure was followed by shouts of laughter, and vociferous mirth. In this way considerable progress was made, and in the meantime the weather became warmer, and the wind veered to the southward. It became therefore more desirable than ever that the ship should be liberated, and, if possible, got closer to the shore, to avoid being drifted with the pack away to the north, as we knew must happen if the breeze should freshen from the quarter in which it now was. At noon, the latitude was something south of yesterday's, and the longitude a mile or two west. The temperature was 33°+. In the afternoon, the wind drew more to the eastward, and destroyed the hope of warping the ship out in the channel which we had been employed in cutting; but as it was by that process alone that we could hope to get clear, the task was resumed with undiminished ardour in a direction immediately to the westward, where the ice was not quite so tightly pressed as elsewhere.

The work went on cheerily, and as the breeze increased the sails were hoisted, and much to our satisfaction forced the head round, when the ship gradually gathered way, and went slowly

towards the land. There was indeed an infinite expanse of ice, but every dark spot of water encouraged the hope that an off-shore wind would soon place us in a navigable channel. Accordingly as the masses separated from time to time, the hawsers were got out, and the ship hove between them, and thus, about 10^{h} P. M., we suddenly emerged into a free space. This proved to be nearly four miles long; but there was no opening beyond it, and again, in the morning of September 6th, all was closed. The wind freshened, but brought with it snow, the most unwelcome thing which could befall us; nevertheless the warps were tried, and with them and the sails together we managed to push, perhaps a mile altogether, towards the land. It was then noon, and hazy; no land in sight; thermometer 29° +. The effect of the E. S. E. breeze was shown in the slow setting of the ice upon the coast; and, as many of the pieces were of sufficient dimension to entitle them to the name of floes, their motion created occasional lanes, which, if we had been able to see but a few hundred yards ahead, might perhaps have been followed with advantage. Even with all the uncertainty and risk, I confess the temptation to gain a single mile was almost irresistible. That the prudent course was the best was soon,

however, exemplified; for the whole of the ice within range of sight shortly after closed, and hemmed us in. For an hour it was doubtful whether we should not be nipped, but by warping into a bight accidentally formed by the overlapping of one floe over the point of another, we fortunately escaped. The wind too increased, so the sails were furled, and the ship secured to the largest floe. Soundings were struck in one hundred and twenty-nine fathoms, the bottom being composed of sand and shells, and by the line it appeared that the ship was drifting N. by E. The night was dark and cheerless from the snow, which continuing to fall clogged the rigging and decks. At daybreak, there was no opening in any direction, east or west; and the ice had been packed against the land, which could be traced from south-east to north; Fife Rock being still visible E. N. E. Our distance from the land was about ten or twelve miles; but, not to speak of the icy barrier which separated us, there was nothing which invited to a nearer approach. The soft blue tint which, twenty-four hours ago, had cheated the imagination, was gone; and now there was the chilling reality of precipitous black rocks streaked with snow, and a mantle of the same cold whiteness spread over the whole of the head land.

It was now the 7th of September, and, with so premature a winter, I could not fail to be more than ordinarily anxious about our situation. I was aware that Sir E. Parry had been within a few miles of the same spot on the 17th of the same month on his return to England ; but at that time the temperature—the season—in short, every thing was different; whereas we were lying powerless as a log, and nothing was left to my choice but to sail through the first favourable opening that offered. So much snow had fallen, that the better part of the forenoon was taken up in clearing it from the decks. At noon, the wind had veered to N. E. by E., which was dead on the land. Soundings were found with one hundred and fifty-five fathoms. Temperature 29°+. Soon after, there was a perceptible movement in the ice near us. At first, I thought it was the re-action produced by the intensity of the pressure; but the blocks and pieces thrown up on the surface of resisting masses, and against the ship's sides, proved that some agent was at work, and not long after a five-inch warp, which held us to the floe, suddenly broke. At 4^{h} P. M. we were evidently drifting much nearer to the land, though no such indication was given by the soundings, which were one hundred and fifty fathoms, with a bottom of green mud.

Indeed, it could be owing only to the amazing pressure from the north, which ground the smaller pieces into powder, and either sunk or threw up others, at various heights and angles, upon the larger pieces, that a space was cleared for our drifting. Whatever the cause, we were setting directly on the shore, without the slightest means of averting it.

Near 8^{h} P. M., a general hubbub, with harsh grating sounds, announced a commotion about the stern, which being turned away from the floe, among the looser ice, was more exposed than any other part The tiller had been secured with lashings, to confine the rudder amidships, but a steep and heavy mass coming against it under the quarter, snapped the lashings like threads, and forced the rudder violently on one side, from which position it could not be relieved until the ice moved away. About the same time another warp was broken, after which we were not much further disturbed during the night.

Sept. 8th brought no change. The same dreary weather overhung the heavens as with a veil. The coast however was dimly seen, forming, according to our position, a long bay, terminated abruptly to the westward by a projecting bluff point, which we supposed to be that dis-

tinguished in the chart by the, to us, most unappropriate name of Cape Comfort. Beyond it, a low neck of land could be made out, running to the north, which was conjectured to be Cape Bylot. Fife Rock bore N. E. There was not, to use the ice mate's expression, "a sup of water in sight." All our hopes, therefore, rested on the uncertain chance of a westerly breeze, uncertain only in such a season as this, inasmuch as ordinarily the westerly and north-westerly winds are the unfailing companions of autumn in these latitudes. The barometer had been for the last fortnight very steady, scarcely varying with any difference of wind. At noon the latitude was 65° 09′, and longitude 82°51′ W., not more, therefore, than fifty miles from Duke of York's Bay in Frozen Strait. The temperature, which had at one time fallen to 23° +, rose again to 28° +, wind N. E.

The hours which usually brought some slight alteration arrived, and passed away, leaving us as we were, so that we were driven to infer that the pressure from seaward had now attained its maximum, and that the compact and boundless field of ice had vanquished tide and current, and was become fixed and immoveable. A mild night succeeded, though at first overcast, yet by 10^{h} P. M. some stars were seen, giving indications of a clear

sky to the north-west. For an hour or two indeed the wind did veer as far round as N. N. W., and tantalized us by vacillating between that and N. N. E. How often did we look up at the mast-head vane, and how often presume to say that it *must* get to the southward and westward.

In the morning (9th Sept.) all was still and motionless, though it seemed that we had drifted a little to the south along the land. At noon, a gentle air might just be felt from the south-west; and as the breeze grew stronger, the hope deferred which had made our hearts sick was again doubtfully re-admitted. At night there was no longer any pressure, for the ship, which had been forced over considerably to starboard, now righted; and this joyful fact the least sanguine construed into an omen of a speedy release. But the next morning (September 10th) the capricious wind first drew more to the south, bringing with it snow, then veered round again to N. N. W., and finally fell nearly calm. The only perceptible variation was the welcome sight of two or three streaks of water within a few yards from the ship. The weather now became unusually mild, the thermometer being at 35° +, and as there was to be a new moon at midnight, we fixed on that event as the harbinger of a change. The hour arrived, but not the prognos-

ticated wind ; and, in the still serenity of the star-lit sky, yet glowing in the west with the lingering tints of a gorgeous sunset, there was a spirit of beautiful repose which seemed to mock our disappointment. All was uniform and motionless, save where the fickle air aloft played with the languid vane, coquetting round and round from every point of the compass, as if, in very waywardness, it knew not where to settle.

The morning of Sept. 11th was also calm, and a mist overhung the barren coast. The ice had opened a few yards, and the ship was with difficulty hauled into the space. As the sun gained power the mist dispersed from the land, or lay in long thin clouds along its dark cliffs, but no water could be seen from aloft. Until to-day no animals had visited us ; but now two seals and some small fish appeared close to the stern. After service the officers collected in groups, and basked in the sunshine of an arctic summer day, with the thermometer at 35° +. For the last three or four evenings the people had been permitted to go on the floe alongside, where they amused themselves by playing at various games, and among others the well-known game of baiting the bear. To-day they went upon the ice for quiet exercise merely, but had not proceeded more than a hundred yards, when Mr. Green,

the ice mate, being on the mast-head, espied a real bear, and the alarm being immediately given, the men ran helter skelter to the ship, headed by a bull-dog belonging to the serjeant of marines, which was first on board. Every one below, hearing the rush, flew on deck, and, learning the cause, seized the first gun at hand to prepare for the attack. Meantime the noble animal (a fine polar bear) nothing startled at a hubbub which might well have frightened a legion of his kindred away, approached with deliberate steps nearer and nearer. His gait was loose, and rolling as if weak from hunger, for he rather drew than lifted his huge limbs over the rugged surface; and still as he advanced, he now raised his black nose and sniffed, and now paused, as appetite or fear prevailed. At length he took courage, and followed up the scent; till, at the distance of about fifty paces from the ship, he stood like a target to receive the balls which were soon showered on him. He fell, but recovering his legs, limped, with what strength was left, a short space off. Then, all hurry to pursue, one grasped a handspike, another poised a lance, a third more heedless rushed on with a mere stick to give the coup de grace. The more prudent however retained their guns, and a few more shots terminated the sufferings of poor

bruin. The sailors with their wonted fun hauled the bulky carcase over the floe, and hoisted it on board.* The condition of the teeth indicated that it had attained to some age. It was lean, and the stomach was found to be entirely empty.

* The following dimensions were taken by Dr. Donovan and Mr. Mould:

	Ft.	Inch.
Length from the snout to the tail	6	11½
Circumference round the middle	5	0
From the snout to the shoulder joint	2	6
From the heel of the fore-paw to the top of the back	4	4
From the heel of the hind leg to the top of rump	3	4
Circumference of fore-paw, including claws	2	0
Breadth of the fore-paw	0	8½
Length from fore middle toe to knee joint	0	10
Circumference of fore-leg below the knee	1	7
Circumference of hind-paw	2	4
Circumference of hind-leg	1	7
Length of the hind-paw	0	8½
Breadth of the hind-paw	0	8½
Length of hind middle toe to knee joint	0	9
Length of tail	0	7½
Circumference of head below the eyes	1	10
Circumference of neck	3	1½
Distance of snout from the eye	0	9¼
Distance between the eyes (internal angles)	0	5¼
Length of axis of the eye (perpendicular)	0	0¾
Depth of snout	0	1
Depth from snout to lower part of under jaw	0	7
Breadth of septum narium	0	0½
Nare elliptical	0	4
Length of ears	0	4½
Breadth of aperture of ear	0	3½

This novelty, trifling as it was, was sufficient to give a turn to our conversation; and the eternal inquiries about the wind, and the speculations as to the probable quarter from which it would next come, were for an hour or two suspended; indeed, there was little to excite us on that subject, for the weather continued very mild and calm, though towards evening it was observed that the ice had opened a little, and what was still more singular, that the ship had a slight undulatory motion. The thermometer during the night did not sink below 32½°+, and early on September 12th, finding there was a chance of getting through some lanes in the direction of Cape Comfort, the ship was with infinite trouble warped about half a mile, when the ice again

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Number of front teeth in upper jaw		6
Number of canine teeth		2
Number of molar do.		6
Small teeth between the tusks and molars		4
Front teeth in lower jaw		6
Canine (one broken)		2
Molars		8
Two small teeth between the canine and molars		2
	Ft.	Inch.
Length of lower tusks	0	2
Length of upper tusks	0	2¼
Breadth between the tips of upper tusks	0	3⅛
Breadth (supposed) between lower tusks	0	2¼
Length of middle fore claw	0	2¼
Length of middle hind claw	0	2

closed, and the breeze blew, though light, from the eastward, that is to say, fromthe quarter directly opposite to what we wished: again therefore our efforts were discontinued, and the ship secured. The thermometer at noon was 35°+, and in a small pool of water astern three white whales were seen. Later in the day the weather became overcast, and brought with it a S.E. wind, thus at once overturning hopes of a week's growth, and making the prospect of our liberation as remote as ever. Nevertheless, as the ice slacked, about 7^h P.M., we warped a couple of hundred yards ahead, and then, setting the sails, endeavoured to bore through the annoying obstruction; a little way, perhaps half a mile, we accomplished; and even that little was gratifying, for our long detention had begun to be dispiriting. The ice then becoming closer, the sails were furled, and on the morning of the 13th September we found ourselves rather closer in with the coast, but owing to the thick state of the weather the precise spot could not be ascertained. During the whole of the forenoon there was nothing but snow, and the breeze blew dead on the land; the result showed itself, as was to be expected, by an increased pressure of the snow and ice, which tightened so much, that before we were aware of it the securing hawser was carried away. It was

replaced by a stronger one, but we could not venture to throw a strain even on this; and whenever any sudden change took place among the ice it was immediately slackened. The snow did not cease until $6^h.\ 30^m.$ P. M., and then so laden were the decks with it, that the people were actively occupied more than an hour in clearing it away: the mist at the same time partially clearing, permitted a glimpse of the land, which was found to be considerably nearer than any one had anticipated, and proved that we had been set further than was expected to the westward. At 8^h P. M. Cape Comfort bore by compass N.N.E., and soundings were obtained with one hundred and seventy-five fathoms of line, at a distance of not more than five miles from the nearest rocks. During the night the increased violence of the wind, and its unwelcome constancy to the adverse quarter, had a direful effect on the shore ice in which we were embedded; and though every piece was so closely and firmly packed against the other that there was not a hole large enough to admit of drawing water, yet at $4^h.\ 30^m.$ A. M. Sept. 14th, an agitative motion discovered itself among the surrounding ice, so violent, and indeed irresistible, that what was not crushed by its enormous force was raised up to various heights; one ponderous mass, with several peaks, to upwards of twenty feet.

Fixed as we were, we partook of the general commotion; and the ship being deep and too heavy to rise with the rest, it had to sustain the whole pressure and became severely nipped, leaning over considerably to starboard. The breeze, too, which still blew from N. E., so far from abating, came on attended by smart squalls. At this time we appeared to be not more than four miles from the land, which was broken into exposed bays, utterly without shelter from the north, and blocked up with close packed ice. Not a pool of water was visible in any direction: to the mercy of Providence alone could we look for rescue from our perilous situation. None but those who have experienced it can judge of the weariness of heart, the blank of feeling, the feverish sickliness of taste which gets the better of the whole man under circumstances such as these. Not an incident occurred to relieve for a moment the dull monotony of our unprofitable detention. Will the wind ever come from the westward? was the question fretfully asked and peevishly answered. This one idea had taken entire possession of the mind, and whilst even a doubt remained, no occupation, no amusement, however ordinarily gratifying, had power to please or even distract the thoughts. Not that this, or any part of it, was expressed in words, but the feeling was not the less easily detected.

As the sun set the sky became rather more bright at N. W., and with much satisfaction the wind was observed to veer that way. A faint aurora was also seen at S. W., and as it has been often considered as a sign of wind from that quarter in which it appears, even that prognostic, uncertain as it is, was eagerly caught at. But although the breeze blew off or along the coast all the night, yet on Sept. 15th not the minutest change was visible, until near 8^h A. M., when a very partial movement took place in about a dozen large masses immediately around us. The effect of this was so far beneficial that it released the ship from the heavy pressure she had been sustaining, and as the sunken pieces, from beneath her bottom, rose to the surface with a bound, and others glided along the sides, she gradually righted. But when we were looking with eager eyes for some little space of water, the motion stopped at once, as if arrested by the hand of magic, and left us again to hope and again be disappointed. The temperature which had been as low as $21°+$, at noon rose to $23°+$. The wind blew fresh along the land until evening, but it was late in the first watch before the faintest stir was heard among the ice, which then merely moved in azimuth, causing the ship to go a few yards astern. Yet to move at all was encouraging, since it proved that the pieces, though wedged

and heaped together, were not yet rivetted by the continually increasing severity of the night-frosts.

Half of the month had now slipped away, and we were held still within sight of the same land as it were in the grasp of a giant. Yet the prospect though unpromising enough was not yet hopeless; for about midnight the wind drew round to the south-west, and came with a force which, a week before, would have fulfilled our most sanguine desires. The ice now, however, was too close wedged to yield at once to its influence, though considerably loosened. Up to noon of Sept. 16. no effectual alteration took place: the thermometer had once fallen as low as 15°+, though it had now risen again to 31°+. The height of the land made our distance from shore appear less than it really was; and often a proposition was made to me that a small party should endeavour to make their way across the land to the westward, and satisfy themselves if any open water was to be expected in that direction. However, being myself pretty confident that there was open water, and moreover not very far away, I could not at this crisis give my consent to it. Besides the toil and difficulty which must necessarily be encountered in the attempt to traverse the country along the coast, broken as it was into ravines and vallies, rendered more impassable by the snow lately fallen;

the hazard of their being separated from the ship left no room for hesitation, though I promised that on a future occasion the proposition should not be forgotten.

The wind now got more to the southward, and after being unsettled for an hour or two, began to blow fresh from S. by W.: still the ice did not stir. However, about 4^h 30^m, it opened out a little, and though no water was visible from the Crow's Nest, the breeze was so strong that it was deemed expedient to set the sails; and answering to their power, the ship immediately forged ahead, generally, of course, very slowly, but wherever the ice was smaller with a speed that brightened every countenance. It was indeed singular to behold the vast ship gliding along without any perceptible water. This could not last, and though it blew a gale of wind, yet even with warps and all appliances and means to boot, we were at length beaten by the solid mass. The last gleam of twilight, however, had just brought to sight several narrow lanes of water precisely where they were most wanted, so that the probability of a release was greater than it had been for at least three weeks. The wind veered a little to the eastward, but rather increased than diminished in violence, so that most of the sails were taken in, leaving enough to press the ship forward if the ice should give way.

Morning of the 17th came, and our hopes were strongly excited. It was an auspicious day, for it was the date of Sir E. Parry's getting clear from nearly the same place on his return to England; but there was no such good fortune in store for us. We had been forced nearer to Cape Comfort, which jutted out something to the north, forming with the wind then predominating a weather shore, under the lee of which it was natural to suppose there would be a 'lead' of water; but contrary to experience and the expectation of all on board, the ice was found to be locked in to the very base of the rocks, and presented a barrier as insuperable as the one just before us. Still the gale from the eastward howled on, and though not a spot of water could be detected ahead, yet there was a channel for upwards of three miles formed in the place we had left; in fact, all that was wanted was a breeze of the same kind from the west. The weather throughout the afternoon was wild and gloomy, and the evening closed in with showers of sleet. The ice was disturbed, and though too firmly wedged to open out, cracked and heaved as if seeking relief from the grinding pressure, but all in vain. The whole cemented mass, however, yielded to the general impulse, and ice and ship were borne helplessly along before the violence of the gale. Much water had been

seen along the shore to the eastward, and there seemed some likelihood of its overtaking us by daylight, if by any means we could hold on to some floe so as to let the smaller pieces drift past. But this, however desirable, was found impracticable, as the whole mass moved together. Throughout the night the wind scarcely abated, but towards morning of Sept. 18th it became moderate; and as the heavy clouds cleared away before the rays of the rising sun, it was discovered that we had been driven past Cape Comfort about three or four miles, and at the same time had been set considerably nearer to the coast which, immediately abreast of us, was fearfully forbidding. To the north it presented a towering and perpendicular front, rent into fissures, or jagged with splintery ridges, all deeply black; whilst towards the south it receded from the summit in round backed hills, entirely (except where sharp-angled rocks peeped out) covered with snow. Farther west the land gradually declined with longer slopes and wider vallies, and terminated in a point, either Cape Bylot or Cape Welsford of Parry. Throughout the entire range I was unable to detect any of those marks which indicate the track of the Esquimaux in their periodical migrations.

The latitude at noon was 65° 12′ N., and in having been drifted thus far, we had the consola-

tory conviction that there must be an open space of water somewhere to the west. We knew moreover that the further we advanced in that direction the more we should be liable to the influence of the high tides in the neighbourhood of the Welcome, where the changes among the ice would be more frequent, and our chance of reaching Repulse Bay consequently improved. In fact, a long narrow lane had begun to form close to the beach, reaching nearly to the extremity of the view, but the breeze freshening from S.S.E. forced the seaward body of ice in, and closed it up again. Baffin Island was visible from the mast-head, but there was no opening in that direction. A raven and a little snow bunting came near the ship. No soundings were got with one hundred and fifty fathoms. As the sun declined the breeze freshened still more, sending the low and light scud before it with the swiftness of an arrow. It was not however till near midnight that we stirred, when the ice, driven by the wind and tide, carried us about a mile.

Sept. 19th sail was set to endeavour to force the ship clear of some large pieces, which ground with a grating noise against the bottom, but it was to little purpose. About this time an Arctic fox, probably allured by the scent of the skeleton of the bear which was hanging to the main-stay, came so close that it

Capt.n Smyth del

L Haghe Lith.

H.M.S. TERROR SURPRISED BY THE ICE IN FOX'S CHANNEL.

was shot by Mr. Gore. A raven, too, wheeled its flight twice round the ship. What must be the wearisome uniformity of a life in which incidents such as these become memorable!

When the haze over the land was in some measure dispersed, we found that we had been set something further towards Cape Bylot, beyond which more land could be made out, and at noon Baffin Island bore N. 50° E. The temperature continued 31°+, and the southerly wind still prevailed. Four points more to the west was all that we required. No water in sight. In the early part of the night a thick mist came on, and the wind gradually veered to east, bringing with it sleet and snow. The next morning (Sept. 20th) it drew more to the northward, and, what was worse, blew fresh, thereby setting the seaward ice down towards the land with more force than had yet been experienced. Shortly after 9h A. M. a floe piece split in two, and the extreme violence of the pressure curled and crumbled the windward ice up in an awful manner, forcing it against the beam fully eighteen feet high. The ship creaked as it were in agony, and, strong as she was, must have been stove and crushed, had not some of the smaller masses been forced under her bottom, and so diminished the strain, by actually lifting her bow nearly two feet out of the water. In this perilous crisis steps

were taken to have everything in readiness for hoisting out the barge, and without creating unnecessary alarm, the officers and men were called on the quarter-deck, and desired, in case of emergency, to be active in the performance of their duties at the respective stations then notified to them. It was a serious moment for all, as the pressure still continued, nor could we expect much, if any, abatement until the wind changed.

At noon the weather and our prospects remained the same. The barometer was falling, and the temperature was 26°+, with unceasing snow. Much ice had been sunk under the bottom, and a doubt existed whether it was not finding its way beneath the lee floe also; for the uplifted ruins, within fifty paces of the weather beam, were advancing slowly towards us like an immense wave fraught with destruction. Resistance would not, could not have been effectual beyond a few seconds; for what, of human construction, could withstand the impact of an icy continent, driven onward by a furious storm? In the mean time symptoms too unequivocal to be misunderstood demonstrated the intensity of the pressure. The butt-ends began to start, and the copper, in which the galley apparatus was fixed, became creased, sliding doors refused to shut, and leaks found access through the bolt-heads and bulls-eyes. On sounding the well too,

an increase of water was reported, not sufficient to excite apprehension in itself, but such as to render hourly pumping necessary. Moved by these indications, and to guard against the worst, I ordered the provisions and preserved meats, with various other necessaries to be got up from below and stowed on deck, so as to be ready at a moment to be thrown upon the large floe along-side. To add to our anxiety, night closed prematurely, when suddenly, from some unknown cause, in which, if we may so deem without presumption, the finger of Providence was manifest, the floe, which threatened instant destruction, turned so as in a great degree to protect us against an increase of pressure, though for several hours afterwards the same creaking and grinding sounds continued to annoy our ears. The barometer and other instruments fell with a regularity unprecedented, yet the gale was broken, and by midnight had abated considerably.

Sept. 21st. there was a lateral motion in some pieces of the surrounding ice, and after several astounding thumps under water against the bottom, the ship which had been lifted high beyond her line of flotation and thrown somewhat over to port, suddenly started up and almost righted. Still however she inclined more than was agreeable to port, nor was it until one mass of ponderous dimensions burst from its imprisonment below that she alto-

gether regained her upright position. On beholding the walls of ice on either side between which she had been nipped, I was astonished at the tremendous force she had sustained. Her mould was stamped as perfectly as in a die. Astonishment however soon yielded to a more grateful feeling, an admiration of the genius and mechanical skill by which the Terror had been so ably prepared for this service. We had many old Greenland seamen on board, and they were unanimously of opinion that no ship they had ever seen could have resisted such a pressure. On sounding the well she was found not to leak, though the carpenters had employment enough in caulking the seams on deck.

At last the wind got round to the westward, and though not a pool of water was visible, still expectation was again on the stretch; but though a fresh breeze prevailed till the evening, and again after a partial calm blew through the night, and though the effect to be anticipated from this would be the sending of the ice to the eastward, if moved at all, yet, strange to say, the very reverse took place, as the creaking of the pressed ship gave us but too plainly to understand.

On Sept. 22d. the vessel was again sharply nipped, but without straining as before. At noon the thermometer rose a few degrees from 15° +, the point to which it had fallen in the night, and

by observations, we were at the distance of twenty-five miles only from Duke of York's Bay; but we could not possibly advance so much as twenty-five inches, or, with such a succession of untoward winds, I should long ago have endeavoured to get the ship into some place of safety. Birds of all kinds had left us, and animals too, except a solitary seal espied to-day from the mast-head: this was immediately pursued by one of the officers, but after a fatiguing walk over the ice, he found the wary seal on the look-out and, instead of waiting to be shot at, it prudently disappeared through a hole in the ice. As the scene of operations was daily growing more circumscribed, and the outward body of ice forced us further in shore, directly towards a bay, bounded at either extreme by craggy rocks; it became important to get some knowledge of its formation, in the hope of finding a shelter behind some protruding rock or point, if circumstances should permit us to get there. Accordingly a party of officers and men, under the direction of Lieutenant Smyth, having volunteered their services, the remainder of the day was taken up in making the requisite preparations for their departure on the following morning. Sept. 23d came on with thick weather and snow, which, together with the quantity that had already fallen,

hid the looser portions of ice between the floes, and thereby rendered the destined expedition too hazardous. About 9^h A. M., a relaxation in the pressure encouraged us to try to warp the ship from her present unsafe situation, and this being found impracticable, the whole crew were employed to cut a canal with axes and other implements, which attempt also was after a fair trial abandoned, as the heavier masses of ice squeezed forward into each vacancy as fast as it was made. The large floe against the larboard, which was the side nearest to the land, was much piled up with hummocks, and directly alongside was upwards of twenty feet thick; and with the double view of employing the people, and to make an experiment which, if successful, might be found advantageous, it was determined to cut a dock in the pure ice. Accordingly, after the dimensions were measured, the officers and men set to work, and having, in the course of four hours, sunk a trench as many feet deep, satisfied me that, assuming the floe to be of a uniform thickness, they could finish the work in ten days at the most. On this occasion, it happened, contrary to expectation, that the ice near us, and only that near us, began at that moment to open, so that by five o'clock P. M. there was a lane for two or three hundred yards, so free of

interruption, that a whale line was made fast to the upper part of the fore-mast, and the men actually tracked the ship along.

We had now been precisely a month beset, without the option of moving in any direction but where the openings occurred, or where the whole body of the ice drifted; and this at a period admitted to be the most favourable for navigating these seas. With every thing flattering to decoy us on within twenty miles of Baffin Island, we there found ourselves suddenly stopped, and saw the ice close behind us in an unbroken line, cutting off all retreat. It will easily therefore be conceived, that the phenomenon which permitted even this trifling advance was hailed with exultation; and though we were soon arrested, yet three or four cracks between the floes and packed body ahead, intimated that something favourable might be expected from the returning tide. The weather, too, continued mild, and a light air blew from the west. Still, though there were occasional fluctuations in the ice during the night, Sept. 24th came without the consummation so eagerly anticipated. By some unaccountable caprice, scarcely had the narrow opening begun to enlarge when the ice suddenly stopped, and then with a reaction truly alarming, pressed against the ship, so as to heave her over considerably on one side to the no small risk of the part nipped, which creaked and com-

plained bitterly; it was some hours before she righted again.

It was now an object so to place the ship, that the excessive pressure, aided as it was by the spring tide, should be received equally on every part of her; and as this could not be effected without the ice saws, they were shortly made ready, and having been fixed to large triangles formed of three high poles, were worked by means of a pulley. With one saw and some axes we were enabled to cut away a sharp piece which had already caused much annoyance, and were about removing it, when the ship which had been warped there, was suddenly set by the ice against it, and in a short time crushed up the whole mass. From that moment the pressure was very great, and after midnight of Sept. 25th, the timbers were strained so severely that there was a general creaking. Happily it did not last, for the crack again opened out and permitted our hauling a few yards ahead, and thereby to escape being caught by an extensive floe which, after sinking all smaller pieces, had forced its way to us. The rudder had borne an amazing force with scarcely any injury, but as there was no longer any reason for exposing it, it was unhung and slung under the stern. We were nearly half way between Capes Comfort and Bylot, were in sight of each side of Frozen Strait, could clearly distinguish Cape Welsford

and the dark water sky over Duke of York's Bay, were only five or six miles from the shore, which would have afforded us some shelter, and yet here we were fixed, compelled to endure the furious buffets which each successive tide brought upon us, and at the mercy of the mighty power that bound us. The temperature had varied from 18° to 23°, and the wind had drawn round to the east, though this was now become of trifling importance, as the westerly wind on which so much reliance had been placed had not even separated the floes, much less driven them from the land; and in fact, according to our united opinions, had made no impression whatever.

Deeply sensible as I was of the growing peril of our situation with days contracting and the prospect of a speedy decrease of temperature, I now made an official demand on the officers of his majesty's ship, for their respective opinions in writing, upon the probability of any further progress being made by our own exertions in the present season, towards Repulse Bay. Their unanimous conviction, from the experience of the thirty-four days in which the ship had been beset, was, that any thing more, with that view, was utterly impracticable, and they suggested the adoption of certain precautions in the event of any sudden contingency obliging us to have recourse to the boats for safety. In this opinion I entirely coin-

cided, and considering that the period had now arrived for taking a decisive step, had determined to cut a dock in a favourable part of the floe which we had quitted; that being the largest, and, according to the ice mate, the only one sufficiently strong for the purpose. I felt assured that, if this could be accomplished, the ship would be protected so long as the floe held together, and in short it was my only resource. The resolution thus adopted was to have been carried into execution, but the following night, without the aid of any strong breeze, produced the most extraordinary changes yet witnessed. There was a general commotion; and the entire body by which we were hampered separating into single pieces, tossed into heaps or ground to powder whatever interrupted its course, and finally, in the early morning of the 26th, rushed violently to the westward, directly up Frozen Strait. The ship bore well up against the hurly burly, and when daylight broke, and we could distinguish objects, we looked in vain for the floe. In the wild convulsion of the night it had been broken and scattered with many other ponderous masses, which now lay piled in ruins around us. It was evident, too, that the ship had been set nearer to Cape Bylot, for the coast beyond it, as well as Baffin's Island, were plainly seen from the deck; so that, for aught we knew, we might still be

Capt.ⁿ Smyth del.

L. Haghe Lith

H.M.S. TERROR THROWN UP BY THE ICE IN FROZEN STRAIT.

carried even to the goal of our wishes without any effort of our own. One fact, at all events, was incontrovertible, that, now the ice, though heavy enough to do great injury, was not extensive enough to shelter us as I had designed, and that there was nothing left but to drift with it until Nature in her own good time should release us.

The ice remained unusually tranquil the whole of the afternoon; but as the night advanced the north-east wind increased, and at 11^h P. M., when the flood-tide made, the ship became sharply nipped: fortunately it did not last long, and on Sept. 27th she was free again. The effect of the breeze which still continued, accompanied with snow, had been to drive us nearer to the land, but without any inconvenience from pressure; and we were congratulating ourselves on this, when, at 11^h A. M., the creaking of the beams and sides abaft the main-mast intimated that the ice was in motion. On looking over the stern, a heavy piece, driven on by several others, was seen crashing or sinking everything before it, and being now checked by the ship, which it struck under the quarter, raised her at once several feet out of the water, the bow at the same time being pressed with such force against a mass ahead as to split it in two or three directions, the whole going bodily

forward. In this alarming manner the ice brought up, leaving the stern elevated seven and a half feet, and the bow jammed against the ponderous masses ahead. Nothing could be done by us to relieve the ship; and as there were no floes of sufficient surface on which to place boats and provisions, if driven to that necessity, I decided on hoisting out the two whale boats from the skids, and hanging them up alongside, so that these with the third and the two cutters, might be lowered at a moment's notice. A further quantity of provision also was to be got up, with ammunition and other necessaries to support life in case of the worst. As for the barge, though in itself the most suitable boat, her size and weight would have rendered her totally unmanageable on the broken and moving ice which surrounded us. The day was spent in executing these arrangements, and I waited with anxiety for the hour when the returning flood-tide should again act. With the wind dead on shore, it was not very likely to loosen the ice; and if it packed it still more, who could calculate on the result? As midnight drew near, an occasional sharp crack about the counter warned us that something was giving way, but it passed; and on Sept. 28th, though the breeze had rounded more to the eastward, the ship had not altered her inclination. Much snow fell, and it blew

fresh till the morning, when the task of completing the requisite outfit for the boats was resumed. The top-gallant-yards and masts were lowered on deck, that the ship might be as light as possible about the mast-heads; and if by any turn of fortune a channel should still open, we could always set the topsails and courses, which would be amply sufficient to take us to an anchorage. At noon the ice was stationary, and we therefore motionless. The thermometer kept up to 29°+ with an easterly breeze, from which I inferred that there was open water at no great distance in that bearing, notwithstanding we could not see it from aloft. On the 29th the only change was, that the wind had veered more to the south, and that although the thermometer was above the freezing point (viz. 33°+) so much snow fell that the whole forenoon was occupied in clearing it from the decks and boats. It was a tedious and annoying situation to be placed in, not above three miles from the shore, yet unable to get the ship there—bays and harbours apparently within reach, and still obliged to be prepared for being wrecked.

The ship remained in the same inconvenient position, the slope and slippery state of the lee side of the deck causing many falls to those who were passing along. Sept. 30th was calm, and a deposition of hoar-frost and small spiculæ coated the

rigging and spars. As this was to be expected for many months, and the consequent difficulty of walking the decks was to be guarded against, I set up the housing cloth between the fore and main masts, and thus made an excellent shelter, and a dry place along the gangways for the people to take exercise. Not that all idea of moving had been abandoned, for I was determined to push up the Strait whenever the slightest opportunity should be given, whether now or in the middle of winter. Nor, placed as we were, was such an opportunity improbable, since Sir E. Parry had throughout the whole winter, remarked more or less open water to the south east of his anchorage at Winter Island. About $10^h\ 40^m$ A. M. a very narrow separation of the in-shore ice was seen, proving the reasonableness of such expectations, especially if a westerly gale, which some were yet sanguine enough to hope for, should at last come to our relief. During the afternoon the same ice closed again without in any way affecting us. Thus ended a month of vexation, disappointment, and anxiety, to me personally more distressing and intolerable than the worst pressure of the worst evils which had befallen me in any other expedition.

CHAP. III.

Lane of Water discovered. — Prospect of wintering on the Ice. — Violent Concussions experienced. — Employment of the Crew. —Erection of an Observatory. —Favourable Position of the Ship. —Disruption by a Gale. —Expansion of open Water. — Officers build Snow Houses. —Excursions to Land. —An exploring Party. —Experiment of wearing a Mask.— Survey of a Harbour. — Pass Cape Comfort. — Risk of being crushed. — Robbed by Foxes and Shrimps. — Thermometer rises. — Huge Mass of Ice. — Amusements. — Thermometers tested. —Accident to the Carpenter. —School for the Crew. — Curious Phenomenon. — Register Thermometer. — Rein-deer killed. — Fearful Storm. — Floe cracks.

On the 1st of Oct. the vessel gradually righted, and from that day to the 6th not a single incident occurred worthy of being recorded, except that the ship got an awkward list to starboard.

The weather was singularly calm, the temperature did not fall lower than 14° +, and the ice remained almost motionless, or moved, if at all, bodily towards the land without creating the smallest noise. One faint and flitting aurora was seen.

On the 6th, a party of four, consisting of two officers and two men, left the ship early in the morning, with the intention of making an excursion on shore, whence they returned about

4h P. M. They described the walking as very fatiguing, on account of the state of the ice, thrown as it was into a heap of peaks and ridges, with the exception of one floe about three quarters of a mile broad, the whole way to the shore, the distance of which was estimated to be about four miles. The sludge ice between the larger masses was frozen hard enough to bear them; and though painful to the feet, was considered the most favourable for travelling on. They did not perceive any open water near the shore, but found some difficulty in reaching it, on account of a chasm between the ice and the nearest rocks, which however at last they contrived to leap over. After resting awhile, they endeavoured to ascend the hills, but were soon discouraged by the excessive fatigue of toiling through snow, already in many places two and three feet deep. Not a single track of an animal was seen to allure them on or cheer their exertions; and under these circumstances, they very wisely retraced their steps to the vessel, where they arrived well fagged with the trip. On landing they had fired several shots, but the sound did not reach us, though more than one were watching their motions. The whole line of coast to Cape Bylot seemed to them to form a moderate bay, and the ice between the ship and shore they thought decidedly more

packed than further to seaward. The specimens of rocks which they brought were gneiss, with a considerable mixture of red felspar. They had not seen a blade of grass, nor a symptom of vegetation of any kind. No marks were observed on the rocks, indicating the rise and fall of the tide.

The day was clear and fine, and the land beyond Cape Welsford, as well as Vansittart and Baffin islands, was so much thrown up by refraction, that had we not certainly known the passage through Frozen Strait, we might have concluded that we were at the entrance of some deep bay or inlet.

In the course of making some changes for the more suitable accommodation of some of the warrant officers, we found the roof and sides of the vessel so damp, as to have contracted in many parts a deposition of blue mould, caused, in all probability, by the vapour from the cook's copper close by. This led to a closer examination of other parts of the ship; and on looking narrowly at the heel of the bowsprit, it was discovered to be sprung from the knight-heads inwards six feet. How or when the injury had been done it was impossible to ascertain: it was, probably, the effect of the weight and strain which must have been thrown upon it, whenever the ship was hove suddenly aback with a slack-

ened bobstay among heavy ice, or it might have been occasioned by running on and lifting against elevated masses. During the afternoon of the 9th the wind freshened from the westward, and early the following morning, much to the astonishment of those who first descried it, a long lane of water was formed in shore at the distance of not more than a mile from the ship. The body in which we were beset had, in fact, separated from and moved away from that nearer the land, leaving a perfectly clear channel to Cape Bylot within fifteen miles from Duke of York's Bay, which I was most anxious to reach in order to place the ship in safety for the winter. The returning ebb closed the lane in a great part, though not entirely, and we continued as firmly beset as ever, yet not without hope that the next three or four days might materially improve our prospects. The same action and reaction successively occurred at each change of tide; but on the 11th, the weather being exceedingly moderate, various transverse cracks and small openings began to appear over the greater part of the ice, and at length actually reached the ship. Towards evening, several pieces of ice slowly moved from under her bilge, and at $11^h\ 30^m$ P. M., the commotion having considerably increased, she first forged a little ahead, and immediately righted. Had it been light enough to send the men on the

ice to make fast the hawsers, such was the rapid change going on, that it is possible we might have gained a few hundred yards; but among other grievances was this also, that the most favourable opportunities invariably occurred when advantage could not be taken of them.

October 12th.—At daylight the different articles which for convenience had been deposited on the ice alongside were brought on board, and unwilling to lose the slightest chance of advancing, an effort was made to warp, but without success. At noon we were almost in the same place as before; with this difference however, that the entire body of ice was broken or separated into single pieces as when we first entered it. The wind had veered to north-east, the thermometer remaining at 22°+; and its unwelcome influence was felt at the very next flood, when it drove the moving ice dead on the land, of course inclosing us in the general pressure. But, in truth, we now hardly knew what to hope, or what to wish. If the ice separated there was danger; if it remained compact, there was the recurring commotion of every spring-tide, and the conjectural effect of the storms which sooner or later must come upon us. These reflections, and the responsibility which devolved on me, embittered the hours which I had fondly hoped to have passed very differently. Plans for spending the winter,

(supposing we were compelled to remain out) had been concerted during the passage across the Atlantic. Observatories were to be erected on shore, experiments were to be made, much in short was to be done from which interesting results might have been obtained; and though I did not yet altogether despair of accomplishing these designs, since, by possibility, the ship might still be set close to some bay or other place convenient for the purpose, yet it could not be concealed that the probability was hourly diminishing.

The night of the 13th October was rough and boisterous just at the very time of the highest tide, and wedging the ice against and under the ship, occasioned many severe concussions. A little past 11^h I was reading in the cabin, when I felt so violent a shock directly under the quarter, that I thought it must have been stove in. The attack (if I may so express myself) was repeated at regular intervals, and lasted for upwards of two hours. On the 14th October there was no other change than that brought by snow, and a depression of the thermometer to $14^\circ+$. One faint aurora had been seen. During the two succeeding days, at the flood-tide, the same concussions were indicated by a slight trembling of the ship. As the tides became weaker the effect ceased, and we remained thenceforth undisturbed.

It was not till October 17th that the tempera-

Capt.ⁿ Smyth.

L. Haghe Lith

CREW OF H.M.S. EREBUS COMPLETELY SNOW WALLED DURING A BLIZZARD

ture fell below zero. On that day, however, it was 9^{om}—, with a clear sky and a very light air from the N. N. W. The aurora was observed at the same time. The planking and timbers, &c. of the ship cracked from the contraction of the cold, and the temperature of the officers' cabins being below the freezing point, the vapour froze until the hatches were shut down, and when this had been done, caused more inconvenience still by returning to its former state, and running down from the beams and sides in streams. I now, therefore, gave instructions for the constant use of the warming apparatus, which on three previous trials had answered satisfactorily. Not long, however, after the fire had been put into the furnace, it was discovered that the heat circulated only along one side of the ship, and upon examination, a portion of the liquid, consisting of brine, was found to have escaped. The work of repair was forthwith commenced by taking down the outer brickwork of the furnace, between which and the latter was the worm of the iron pipe that formed the heating apparatus. It was a flaw or opening in this worm that had allowed the liquid to escape, and this imposed on us the additional trouble of putting the forge together, which was accordingly done under a canvass shed on the ice alongside. Here the armourer, who had been supplied to us from

Chatham Dock-yard, an industrious and active man, set to work with seeming delight, and in a few days the worm was replaced and again bricked up. I determined, however, on a general inspection of the whole range before the fire should be again lighted. In the meantime the steam and vapour on the lower deck spread over the whole upper surface and sides, as well as on the beams and stanchions, and then becoming condensed and falling in every direction, acted something like a shower bath. Rather than suffer this, the consequences of which on the general health might soon have been felt, the hatches were again thrown open, and the clouds of dense vapour suffered to escape. It was my intention, in case the heat generated by the warming apparatus should not be adequate to the absorption of the moisture, to have iron tanks placed on the upper deck as condensers ; but the plan for the present was delayed, for being quite ignorant of what the next spring-tides might produce, I was more tardy in making final arrangements for the winter as well as in organising occupations for keeping up the health and spirits of the crew, than was consistent with my own wishes. Not a day, however, had been suffered to pass without some active employment, either in the duties of the ship, or on the ice, where healthy exercise was turned to profitable

account in constructing paths and one general road towards the shore. The officers kept their regular watches; nor in the peculiar situation of the ship, and the uncertainty of what might happen in case of any sudden storm, were the men at present discharged from the performance of the like duty.

The temperature had hitherto been registered every two hours, but on October 18th two large spirit thermometers previously tested and found to agree, were placed on each side of a thick post fixed on the tafrail, in a direction due north and south; the southern thermometer having its bulb freely exposed, and the northern one having the brass guard usually thrown over the bulb by the makers. These were now to be registered every hour, and at 2^h P. M. October 20, with a clear sky and a light air from west, the north shewed $4^\circ+$ and the south $22^\circ+$. The following day at 6^h P. M., wind light at N. N. E., the temperature fell to 15° by both. An hour after, the weather became overcast, and they rose to 8°.

The risk of the ice separating had induced me to defer the erection of an observatory, but now I yielded to the urgency of Lieutenant Stanley, who was eager to commence a series of astronomical observations, and a party of officers and men, under his directions, set about the work on a

small floe, less than two hundred yards from the larboard quarter. The site chosen had every appearance of solidity, and yet, to my surprise, I confess, after the sharp weather of the past few days, they came to water on removing snow, a foot or two from the surface. At first it was thought to be fresh, but when they had dug about five inches through ice, the sea-water rushed up, thus proving how great is the protection afforded by a covering of six or eight inches of snow. The ice formed on the fire hole* in a single night but three days before was just five inches thick.

Meantime we were not unobservant of the habits and dispositions of the crew, hastily gathered together, and for the most part composed of people who had never before been out of a collier: some half dozen, indeed, had served in Greenland vessels, but the laxity which is there permitted, rendered them little better than the former. A few men-of-wars-men who were also on board, were worth the whole together. The want of discipline, and attention to personal comfort, were most conspicuous; and though the wholesome regulations practised in His Majesty's service were most rigidly attended to in the Terror, yet such was the unsociability,

* Fire hole — hole for drawing water in the event of fire.

though without any ill-will, that it was only by a steady and undeviating system pursued by the first lieutenant, that they were brought at all together with the feeling of messmates: at first, though nominally in the same mess, and eating at the same table, many of them would secrete their allowance, with other unmanly and unsailor-like practices. This was another proof added to the many I had already witnessed, how greatly discipline improves the mind and manners, and how much the regular service-man is to be preferred for all hazardous or difficult enterprises. Reciprocity of kindnesses, a generous and self-denying disposition, a spirit of frankness, a hearty and above-board manner—these are the true characteristics of the British seaman; and the want of these is seldom compensated by other qualities. In our case, and I mention this merely to show the difference of olden and modern times, there were only three or four in the ship who could not write. All read; some recited whole pages of poetry, others sang French songs. Yet with all this, had they been left to themselves, I verily believe a more unsociable, suspicious, and uncomfortable set of people could not have been found. Oh! if the two are incompatible, give me the old Jack Tar, who would stand up for his ship, and give his life for his messmate.

Nor were the efforts of the first lieutenant confined to the enforcement of discipline or the regulations of the mess; for, as I felt the importance of amusing the minds of the crew during so many hours of forced inaction by every innocent device, he kindly undertook and personally superintended the getting up of a general masquerade. The affair 'came off' on the 22d October; and if the entertainment was not of a very refined character, at all events it answered its purpose; for the fun was hearty and the laughter loud. Some of the devices, as well as the contrivances to give the necessary variety of costume, with the scanty means at our command, did great credit to the ingenuity of the performers; and altogether it was a gratifying scene, as showing how the native elasticity of the mind can triumph over circumstances the most cheerless and discouraging.

October 23d. After divine service, which was listened to with a stillness that evinced, more than words could have done, the devout feeling created by the impressive and beautiful language of our liturgy, as the weather was very fine, the people, under the direction of the officers, were sent on the ice for exercise; and I too, putting on a pair of Chippewyan snow-shoes, sallied out and made towards the land, which I reached after more than two hours of great fatigue.

There was nothing besides the novelty of having been on shore, to repay me for the trouble and falls which I met with in getting there. A bare jutting or rounded piece of granite was visible here and there, the rest was covered with snow, steep and inaccessible, and dipping to the water's edge. It was a desolate solitude which, from the absence of all tracks, seemed to be equally abandoned by man and animals. At that part, at least, there was no shelter; and when I reflected on the dangers by which we were encompassed, and the casualties which might befal us, I could not refrain from casting an anxious look towards the ship, whose masts alone were in sight above the peaked hummocks, and imploring the protection of heaven.

The fatigue I experienced from my walk did not arise from the distance, which at most could not exceed six miles, but from the unevenness of the surface, which, from the smooth and in some places deep coating of snow that covered it, was extremely deceitful. In stepping forward, it often happened that my show-shoe was canted over by some sharp piece out of sight, and I myself thrown down; but worse than this were the ridges and hummocks, which being heaped up to a considerable height demanded the utmost exertion to surmount. On one occasion I slipped, and falling headlong into the snow,

found that I was between two thick masses of ice, with my face down, and that I hung only by the right snow-shoe, which, fortunately for me, had turned so as to fix itself across two pieces strong enough to support me. From this awkward situation I was eight or ten minutes in extricating myself, and congratulated myself not a little on my escape. The fact is, that I ought not to have been alone; but as I was at present the only person who could boast of a pair of snow-shoes, no one could keep pace with me. Every thing which I saw between the ship and the shore, the heavy floes in some parts, and the extreme pressure that must have existed in others, served to reconcile me to the position in which accident, or something better, had thrown the ship, as affording a more favourable chance of getting away than if we had been nearer to the land.

October 24th, being the day of the full moon, had been looked forward to with more than ordinary interest, on account of the spring-tide; though, from the cold we had experienced, the snow which had fallen, and the uniform compactness of the ice in every direction, it was thought that it might now affect us but little, if at all. The hour of change was ushered in by a fresh westerly, or off-shore breeze, which passed harmless over the surface of the vast

body, only raising in its fury clouds of drift, particularly about the land to the east-ward of the ship. Scarcely, however, had the sun crossed the meridian when a change came on for the worse, and soon settled into a downright gale, such as a fortnight ago would most likely have taken us to Repulse Bay. Until 4^h P.M. it had not made the faintest impression on any part of the ice, but at that time a lane of water was observed between us and the shore, precisely where I had walked over yesterday. Aided by the gale, which sometimes burst in heavy squalls, the channel went on gradually expanding until night closed the view. About 8^h P. M. however, a crack directly ahead and another on the starboard quarter were heard, seeming to announce a general disruption, the effect of which, at that hour of darkness and at so late a season, it was impossible to foresee. Sleep was banished, at least from me, and when the morning of October 25th arrived, a continuous sheet of water was seen extending from the before-mentioned lane to Cape Bylot, and thence to seaward abaft our starboard beam. Two or three other small openings were seen; and the ship unable to resist the power of the gale, had worked a clear space of three inches along the whole of the starboard side. By noon the cracks ahead and astern were something enlarged, and the lane of water on the starboard side

seemed to be nearing us. The wind now began to abate, and having caught a glimpse of the land, we found that the ship had been driven together with the pack to the eastward. The temperature from 3°+ had risen to 26°+, the breeze still prevailing from the west.

During the afternoon the sky continued overcast, and the wind freshening up from the same quarter, the ice began to set to the northward as well as eastward, so that after a boisterous night, we found ourselves much nearer to Cape Comfort. The water too had increased considerably, reaching now from Cape Bylot to Cape Comfort; a second lane had been formed which, branching to seaward in a semicircular shape, joined the principal opening near its two extremes, and thus completely insulated the pack in the centre of which the ship was fixed. How far the channels led, and whether, supposing we could have entered them, serviceable use could have been made of them, was at best matter of conjecture merely; but on the other hand, it was clear, that the separation of the ice, so as to admit of the trial, would have exposed us to the irresistible crushing of the consolidated masses around, masses very different from the straggling pieces which formerly knocked against us, and cemented into vast floes, whose momentum the ship, strong as she

was, could scarcely have withstood. Upon the whole, therefore, it was gratifying to me to see the ice, forming the pack in which we were, remain firm; for so long as that was the case, however incommodious our position, it was at least safe. Meantime we continued to drift as before, until the wind getting round into the east began to send us back again.

The temperature was 27°+, and the weather extremely gloomy. By the morning of the 27th we had not only altered the bearing of the ship's head from west to east, but had drifted so far out as to have a distinct sight of the land forming the extreme point of the bay eastward of Cape Comfort. There was also much more of clear water along shore leading directly up Frozen Strait, where, hanging over the Western Hills, were dense clouds, similar to those near us, indicating, beyond doubt, a continuation of the same channel. That, therefore, for which we had so long and anxiously waited — that which, in two days at the most, would have terminated our labours by allowing a free and unobstructed passage to our anchorage, was now before us, and we were helpless and immovable, fixed in the solid mass as it were in a block of marble. Again, the heavy clouds to the far east showed open water in that direction also, so that at this time, with an offshore breeze, a vessel might have

sailed without impediment (so far as we could judge) from one extremity of Southampton Island to the other. In the direction of Baffin Island indeed, and to the north, the horizon was still white with ice; but the fact of our having drifted so far from the land proved, beyond question, the existence of a clear sea thereabouts: and though no immediate advantage could be expected from this circumstance, yet in conjunction with what was daily passing near us, it afforded the hope of a departure early enough for carrying into effect the objects of the expedition in the course of the following year. To behold the open water so near, without a possibility of reaching it, was mortifying enough, but we made a virtue of necessity, and suppressed our feelings.

The usual occupations in cleaning the holds, re-stowing and getting provisions for six months at hand, with other necessary duties, were followed up on board; whilst for the preservation of health, a moderate share of walking or rather working exercise was taken on the ice. The officers found employment and amusement in building snow houses for various purposes, and among others for an observatory, instead of that which had been already put up with a sail covering, too valuable to be risked upon so uncertain a foundation. My plans, as to magnetical observations, were for the present completely frustrated by

the motion of the ice, though I did not despair of yet doing something in that respect during the winter. At noon the weather was very gloomy, with smoke-black clouds hanging over the water, and seeming more heavy from mingling with a greenish pale yellow which canopied the snow-clad hills beyond. The wind was from the southward and the thermometer showed 28°+. The next day the water remained still open, and in the opinion of the ice-mate had greatly increased towards the upper end or western extreme of Frozen Strait. From alongside the ship however, to the nearest edge of the pack connected with the water, the distance was at least a mile, the whole of which was a succession of hummocks, wedged and cemented by sludge and snow into a mass so firm, as to defy any human efforts to separate them. Yet so tempting was that channel, so doubtful its re-occurrence when we might be at liberty to avail ourselves of it, that had there been wood, or the means of procuring fuel around Repulse Bay, I could hardly have resisted an attempt with the boats, whereby half the object might have been accomplished by the time the ship could have forced her way to an anchorage. But without fire, the thing was utterly impracticable, so I was compelled unwillingly to submit.

The warming apparatus, of the repair of which I

spoke, had again been bricked up around the furnace, and was now to undergo another trial, which, it is painful to add, was equally unsuccessful with the former. This second failure was attributable to the shortness of the nuts and the fineness of the threads of the screws, and fresh leaks in the pipes ; a combination of evils which, if not overcome by the skill of our armourer, would reduce us to three common stoves, and these, it is scarcely necessary to say, would be utterly inadequate for warming the whole ship. The damaged parts having been repaired, and the whole once more replaced and filled with brine, the furnace was lighted ; but now, one side only was warmed, the temperature of the other being scarcely raised. The cause of this was found to be the insufficiency of the liquid forced into the circulating pipes, and this being remedied, there was for a short time a prospect that all would go right. But it was for a short time only, for a fresh leak soon discovered itself, and once more arrested the proceedings. The people annoyed at these interruptions, and the complication of the whole affair, with characteristic humour, nicknamed it the infernal machine, and prayed that we might not all be blown up. Fortunately for us, the thermometer was still high, viz. 26°+.

The wind being light, we did not seem to vary

our position much during the night, and yet in the morning of the 29th it was evident that the ice near the shore had by some means or other diminished in quantity, either by drifting away, or from having been broken up by the tide. At all events, the channel of water was certainly nearer, and we ourselves closer to the land, which remained shrouded in sombre clouds. Much inconvenience was now experienced from the great accumulation of moisture on the lower deck. When the warming apparatus began to throw out its heat this had partially disappeared; but that complex and most vexatious piece of mechanism, after performing its office with tolerable regularity for a few hours, again, with an inexplicable caprice, confined its action to the larboard side, and soon after, though there was no visible defect, or any want of fire, grew cold altogether, and consequently useless. To remove the vapour for the present, two hanging stoves were placed on the lower deck, which answered the purpose, but half stifled with their smoke those who were below.

The wind which had set in in the morning from the N. E. blew with increasing strength as the day closed; and when the moon shone out, a dark lane of water was supposed to be descried between our pack and the coast which we were rapidly nearing. Here, as at the more westerly

part, the ice had almost entirely disappeared, so that there was every reason to suppose we should be brought up by the inner edge of the pack striking the rocks. If this were realized, it was to be expected that the concussion would not only detach and pulverize the extremity immediately in contact, but that the reverberation of the shock might extend itself even to the ship, free her from her icy bonds, and leave her once more to the mercy of drift ice. This was a consummation not to be wished, and I passed a restless night. More than once it was thought that the pack had actually struck the land, but in the morning of Sunday, Oct. 30th, the appearance was found to have been a delusion, occasioned by the high and dark line of the coast on this part of Southampton Island which has been already described as adjacent to Cape Comfort. After the accustomed examination, and the religious duties of the day, the whole of the crew, under the guidance of the first lieutenant, made an excursion towards the nearest land which, however, they were unable to reach. on account of the interposition of a few feet of water between the pack and the bay ice and sludge adhering to the rocks. The distance from the ship to the spot whence they returned, which was considered about half way, was estimated at something more than a mile. At noon, the

thermometer having been at 3°+ rose to 9°+, the wind from the westward. In the early morning two prismatic lunar halos had been seen. The pack was now arrested by the young ice, which on the following day I went to examine, in company with a small party of the officers, who continued their walk to the shore. They returned in the evening with an account of the toil they had had in scaling the precipitous sides of the rocks, which, there, were of red granite. Seals and a recent track of a bear were seen, as well as the excrement of Alpine hares. From the summit of the hills, the young ice could be traced ahead or to the eastward of the ship, almost surrounding the pack, which was decidedly the heaviest in sight. The weather being obscure to the westward, nothing could be ascertained in that quarter.

On November 1st, the thermometer was 10°+, and the ice stationary. The holds having now been arranged, as well as the coals would allow with more advantage, the articles liable to injury from the frost placed in midships, and six months' provisions stowed near the hatches; there remained little of duty to occupy the attention beyond the important one of setting to rights the warming apparatus. Assuredly, no pains were spared to solve the puzzling question, why it would not act. Some of the

pipes were again repaired and a volume of hot salt-water having been driven with a forcing pump from one extremity to the other, its entire reparation was thought to be conclusively established. The fire therefore was lighted, and, as the warmth spread throughout the ship, it was considered that all obstacles were finally overcome, when suddenly, to our great and serious disappointment, first the starboard side cooled rapidly, and ten or twelve hours later the larboard followed the example. The evil now began to press on us the more heavily as our remedies were failing; for, not foreseeing nor imagining such a succession of disasters, we had been supplied only with such a quantity of mortar as might be sufficient for making good any fracture in the furnace, the whole of which was expended; so that it was necessary to leave it untouched until some substitute could be discovered. As there was reason to suppose that the pipes had become foul or partially obstructed, I directed that a stream of hot water should be forced through the whole range of pipes for several hours without interruption, and went myself to superintend the operation. Half an hour's trial, without visible result, convinced me that, to do anything effectual, a part (at least) of the tedious contrivance must be unscrewed and examined, and this, notwithstanding the confusion it would

create in the officers' cabins through which it passed, and the doubt of our being able to put it together again, was accordingly directed to be done. In the mean time the temperature had fallen to 22°—, throwing the lower deck into a most uncomfortable state, and yet not so bad as the after cabins, which were dripping with moisture. Much to the credit of the officers no complaints were heard, nor was the health of any one affected. Moreover, under every disadvantage, the deck was kept perfectly dry.

November 4th. I accompanied a party of officers to the land for the purpose of satisfying our curiosity respecting an opening about three miles from the ship, which had the appearance of a harbour. The result in some measure verified our conjecture, for we walked upwards of a mile from the entrance to the further end, where, providing the holding ground were good, any vessel would be securely sheltered. From a bold perpendicular rock, one of the many by which it is girt in, the echo was so clear, that an unhappy wanderer in these dreary solitudes might have listened to his own voice, and fancied himself no longer alone. We attempted to ascend a sloping side to gain the heights above; but all except myself being unprovided with snow-shoes, sunk so deep in the snow that the effort was found too laborious, and was therefore abandoned for another opportunity. In this

excursion a few tracks of bears, wolves, and foxes, and our old acquaintance the raven were seen; and though the weather was fine, yet a moderate breeze from the westward was quite cold enough to freeze slightly the faces of two of the gentlemen, which, however, the application of a little snow soon restored to their former florid hue. By way of experiment Lieutenant Smyth put on a common mask, and at first considered it rather comfortable, until getting heated with exertion, a cake of ice was formed inside, which, not being the kind of lining he preferred, was immediately rejected, and from the face the mask was transferred to the end of a boarding pike, the point being thrust through one of the eyes, and carried in that way over his shoulder. With such a Gorgon's head, it was laughingly remarked, we need not fear to face a troop of bears. In the afternoon we returned on board. There was a broad sheet of bay ice from the shore to the pack, but although now firm enough, we could form no opinion of what it might be when acted on by the ensuing spring-tide. There was not the least sign of any tide-mark along the rocks, though a cracking of the ice, as if it were sinking, was heard.

On inspection of the pipes it turned out, as I anticipated, that a considerable quantity of rust and dirt had accumulated in the starboard return pipe, and this having been cleared out, the

apparatus was again put together, and for a time threw out a general heat. But after two days' trial the heat, though occasionally as high as 60°+ between decks, was found to be too irregular for the purpose mainly intended, of keeping the interior dry by the action of a uniform temperature. On the contrary, it rather seemed to favour the generating of vapour, which now ran in streams from every part. The officers' cabins, gun-room, and midshipmen's berth were miserably uncomfortable. It was in the after-part, especially near the first Lieutenant's cabin, that the greatest accumulation of moisture was observed, and there, as there seemed to be no chance of an improvement, a stove was now permanently fixed. For the rest, the deck was partly covered with snow, well beaten down, and in default of gravel or sand, strewed with saw-dust. Besides this, the after-hatchway or companion was closed, and a tank placed over it for a condenser, while the ladder was transferred to the main hatchway, having a fearnought screen round it below, and a regular door entrance above on deck. With these, and numerous other precautions of a like kind, it was hoped we might contrive to get through the colder months of the winter.

After service on Sunday, November 6th, the people strolled on the ice, many extending their

walk to the land. On the following day a party under the orders of Lieutenant Stanley, was directed to make a survey of the harbour. This was completed by the evening. It was ascertained to be one mile and a half long, and half a mile broad, by admeasurement; exposed to a north-north-east wind, but sheltered from all others. The echo-rock was six hundred and fifty feet high; some others varied from that to eight hundred and fifty feet; these again were backed by the coast range, running generally from one thousand to fourteen and sixteen hundred feet above the level of the sea. Neither the depth of water nor the nature of the bottom could be got, on account of the under layers of ice intercepting the lead. I called it Smyth's Harbour, after the first Lieutenant of the Terror. Some of the gentlemen ascended the hills by the vallies, and observed on their way numerous tracks of animals,—bears, wolves, foxes, and reindeer. A few willows were also seen, near which were the tracks of partridges.

The pack in which we were frozen had now remained so long unmoved, and the bay ice had attained such a solidity, that many concluded we were definitively fixed for the winter; but on the 8th November a fresh gale ushered in the new moon, and before night drove the huge pack from the inshore ice, leaving between the

two a dark lane of water. The land was effectually shut out from view by the whirls of drift raised by the gusty wind, but on the following day, November 9th, a partial clearance showed that the pack had not only drifted out, but was also setting to the eastward, Cape Comfort being at that time full on the beam. After this, the same kind of weather continuing throughout that day prevented us from ascertaining the precise situation of the ship, till daylight of the 10th, when we found we had just passed Cape Comfort. Our pack, in leaving the station where it had been so long undisturbed, had carried away a considerable portion of the bay ice attached to its edges, and had now turned round about ninety degrees, placing the stem of the ship towards the land, and consequently leaving her head true north. From the crow's nest much young ice was observable on every side, but only in lanes intervening between the heavier bodies, of which it was remarked that our pack was the most extensive. The thermometer still retained an elevation which we thought high, viz. 11°+.

It may well be imagined that these spring-tide changes of position gave rise to no little speculation whither we might be driven by the time the ice commonly breaks up. During the three succeeding days we were blown backwards and

forwards until the pack set in towards the shore a little to the westward of Cape Comfort, and here it was hoped we might remain undisturbed up to the time of the next spring-tide: but not so; for a strong north-westerly breeze coming on with heavy squalls and much drift, we were again set in motion to the eastward, in an oblique direction towards the land, which, when seen at intervals through the drift, appeared to be nearer than we had yet approached. The temperature now fell to 14°—, and this, though not in fact so low as on some previous occasions when the crew had walked out for exercise, was found, with the aid of the breeze, too biting to be faced without great discomfort; and, consequently, after our accustomed assemblage at divisions and church on the 13th, the men were directed to walk under the housing. Throughout the latter part of the day and most of the night, heavy squalls were frequent from the same quarter, and though these had considerably abated by the 14th, yet, to our astonishment, the pack had taken us, according to Lieutenant Stanley's measurement, within three thousand six hundred and fifty yards of the inaccessible cliffs of Cape Comfort, against which, therefore, there was reason to apprehend that the ice might strike, break up, and wreck the ship. The extraordinary disappearance of extensive bodies of

inshore ice, and the occupation of their places by the still heavier ones from seaward, seemed at first quite unaccountable, till the fact was established that two thirds of it were actually ground and pressed up to the height of twenty feet, in a solid mass against the unyielding rocks. What fatal consequences, therefore, might not be apprehended if any untoward fracture of the pack should unmoor us from our present bed! A small hole of water was all that was visible from the mast-head, but happily that was off the point to the eastward, and between the pack and the shore there was yet a weak barrier of drift and bay ice to fend off any serious concussion. The drift had spread such a uniform carpet over the entire surface of the ice, that it seemed like one immense floe. A vast proportion of it had evidently been drifted down from the northward, and having wedged itself between the western extremity of our pack and Frozen Strait, was thus, in combination with the wind, gradually forcing us out: situated as we were, this was a consummation most devoutly to be wished, for our return to the strait was clearly impossible, even if the wind should veer to the eastward; and any change of place was obviously better than a position immediately off an iron-bound cape.

And now again the annoyance returned which

has been already mentioned oftener than I could wish. In spite of every attention, our troublesome warming apparatus could not be made to answer. Scarcely did it begin to throw out a little heat than one pipe or other gradually cooled, and left us teeming with vapour which it had just had the power to generate. Not a day passed without a complaint of its inefficiency. In its best state the officers' cabins were dripping, and a stove was necessary to dry the deck. I had been most reluctant to abandon it altogether, but at last, on repeated representations of its failure, I issued an official order to the proper officers to survey it, and on their report pronouncing its condemnation, I directed the furnace and its appurtenances to be dismantled, and availed myself of the lead and copper attached to it, for fitting up a Fraser's stove a little before the main-hatchway on the lower deck.

November 16th. We continued to move according to the direction of the wind, off the point of Cape Comfort, with some holes of water round the pack, caused by its own motion, but did not get beyond it, either to the east or to the west. I examined the recently formed ice near the land, which was broken into slabs, and piled up in the utmost confusion, so steep and irregular as to be almost impassable. Just at the

edge of the pack, while keenly following the fresh track of a bear, in the company of three of the officers, we suddenly came to some gravel evidently thrown up by the lower ice, and looking more attentively round, observed that the adjacent ice was in a raised and spherical form, as if resting on a rock or bank of similar shape. The pack was only a few yards from this, and had evidently been arrested by it, as was further demonstrated by a crack about twenty feet from its edge. To get away from the shoal, therefore, would require an off-shore breeze ; nor was this long wanting, for on the very same night it blew fresh from the westward, and urging the ice along the land, faster than might have been expected in a neap-tide, by the forenoon of the 18th we had completely rounded the Cape, and were considerably farther out than we had been since the early part of last month. On making an excursion with a small party, I observed that our pack had received another shock, and that an extensive crack on the side nearest the land was the consequence. Again I saw the same convexity of surface, terminated by huge mounds of splintered fragments amounting to hundreds of tons in weight, each piece or fragment, though of this year's ice, being from two to two and a half feet thick. The existence of shoals was manifest, since the pressure

causing the accumulation referred to, ceased abruptly where this and other similar remarkable elevations appeared. Beyond that line, and occupying a full mile in breadth, was a sheet of young ice, alternating with heaps of a different character, and extending towards the land, which, however, we were prevented from reaching by a narrow lane of water. Tracks of bears, wolves, and foxes were noticed, of which the last mentioned alone ever ventured to approach the ship. Indeed these met with no very friendly reception, having put an end to all relations of amity, by stealing sundry pieces of beef, left carelessly by the owners outside on the snow. To do them justice however, they were not the only depredators, as they soon experienced who, having been taught to mistrust the honesty of the foxes, afterwards *to be very safe*, sunk their allowance of beef in the "fire hole." Alas! to adopt the pathetic lament of old Shylock, "There be water thieves and land thieves:" and here a greedy colony of shrimps made such havock, that when in the morning one of the men went to draw up the meat intended for the dinner of his mess, he found in its place a few miserable shreds, to which the pirates still clung with unsatiated appetites. The temperature fluctuated from 0° to about 21°—, but there were neither aurora nor other phenomena to excite attention

and employ the mind; and all attempt to make magnetic observations, except in occasional instances, was frustrated by the constant moving of the pack. This indeed was a serious disappointment, as we had many experiments in view, which could not have failed to be highly interesting.

November 19th. The wind veered to the south-east, and some signs were observed of water in the opposite quarter, occasioned, as we knew, by the motion of our own pack. The night was unusually calm, yet it was apparent to every one that some disturbing force was carrying us rapidly towards the frowning precipices not a gun-shot distant. The attention of those on deck was riveted to sounds distinctly heard of breaking ice, crashing and grinding with a discord the more horrible, as with that exception nature was in dead repose. When day dawned it appeared that we had been driven to the westward, and close in shore, where the bay ice was still in tumultuous agitation, having been thrown up against the rocks in some shelving places, to the height of thirty or forty feet. After church a large party went to the edge of the pack, or floe, as it was now termed, and witnessed the work of destruction as it went on. It was a spectacle indeed not less sublime than appalling; filling the mind with awe, and at the same time inspiring it with devotional gratitude to that Being whose Pro-

vidence watched over us and preserved us in the midst of such fearful perils. On the 21st November we moved but little, though close in with the point of Cape Comfort, and therefore exposed to the influence of those alternate tides which worked so much confusion amongst the bay ice. The wind however began to blow fresh and steadily from the south-east, with the same degree of force which had hitherto characterized it on the days of full and change. In consequence of this change the thermometer showed a disposition to rise, and on the 22d was 9°+, the weather being overcast, and the ship farther off shore. Still, notwithstanding the continuance and strength of the wind, we did not increase our distance from the land so much as might have been expected, a circumstance which can only be accounted for by supposing that its influence was partial, or that ice had accumulated in the north so as to prevent any egress in that direction. Whatever it was, we certainly had not been drifted more than five miles; and after the period of full moon, an opposite breeze sent us again in shore, altogether to the westward of the Cape.

On making holes at two places, a quarter of a mile apart, the thickness of the ice beneath the covering of snow, was found to be not more than two and two and a half feet. Much snow now fell, and even with a fresh northerly wind, the

temperature was 11° +. So mild did the weather continue, with every wind, for several consecutive days, that the snow remained fleecy and soft, and, obliterating every trace of the old tracks, perplexed us considerably in our daily exercise. Our floe had undergone a change of form from the pressure on the extremities, and having been forced against the compact and solid ice off the western low point of Smyth's Harbour, a large portion of it had broken and separated from the main body. On examining it myself, I saw that there were cracks in all directions, and concluded that two more such encroachments would infallibly extend to us: nor was it possible to avoid the reflection that no art could save us, if we were once exposed to the grinding pressure of the mass against the rocks. Communication with the shore was cut off; but having followed the channel some way to seaward, it was found to be connected with another open space of more than usual extent, though now fast becoming coated with thin ice. Nor was this distant from the ship; and within a few hundred paces was an accumulation of ponderous masses of ice, the interstices between which were filled up with snow drift, so firmly cemented, and of such height, that it might well have passed for a berg. From its summit

I looked down into the Terror's main-top. One of the crew saw some fish in the water which he described to be as large as salmon, but we were unable to set lines, owing to the overlapping of the ice below the surface.

November 28th. There had been a dark steel-coloured sky, extending from about Winter Island to the situation of Repulse Bay, so exactly resembling that which indicates open water, that we could not forbear imagining the ice in the centre of the Welcome to have broken up. That some such occurrence must have taken place was indeed evident, for the ice was now perpetually in motion, and we were driven occasionally five or seven miles. A strange refraction of the horizon to the north was remarked about sunrise, or rather when the sun was seen just above the south-eastern hills. At the part to the north the sky was a dark grey, and the icy horizon appeared in detached horizontal lines at a very acute angle. The temperature fell to 16°–, with a moderate wind from the westward. Without much variation in the state of the weather, a very sensible diminution was brought about on the edge of the floe by the successive action of the inshore ice against it. But as the temperature had fallen to 30°– of Pastorelli's thermometer,

and 38°– of Newman's, it was rather thought that the detached pieces might again unite and form a stronger bulwark of defence than before.

It has been already mentioned that the crew were daily exercised on the ice; and as it seemed better that the mind should be fixed on some object, the accomplishment of which might be looked forward to with a sort of interest, the whole were directed to build up snow walls and galleries in different directions from the ship. These being destined for the comfort of all, the work was cheerfully undertaken, and the operators were rewarded with a proportionable stock of health. Good, however, as was the general health, it was necessary to relieve the monotony of scene and occupation; and in this view the officers kindly undertook to perform a play for the amusement of the men. Accordingly, on November 29th, a day specially selected on account of the gallant action off Pelagossa, 1811, (such had been the deep impression left by Sir J. Gordon's good offices and urbanity), every preparation that our limited means would permit having been made, it was announced that the Farce of Monsieur Tonson would be acted that evening. The exhibition at the appointed hour, ushered in by an appropriate prologue from the first lieutenant, and set off by scenery from the brush of the same accomplished performer, occasioned hearty

laughter, plentiful plaudits, and in conclusion, three hearty cheers. After the performance, the dramatis personæ, with the other officers, passed a few hours together; and I question whether in any other quarter of the globe, an equal number could be found more free from care than were the merry group so assembled.

The sea, however, was not charmed into inactivity, for the usual grating noise was heard by the watch on deck, and in the morning the floe was found to have turned in more towards the shore. A drift was skimming over the ice, which rendered walking, even with the advantage of snow-shoes, a more severe task than was agreeable; but being desirous to see what effect had been produced by the uproar of the night, I went to our nearest boundary, and found that it had suffered further encroachment, and was crushed and thrown up like the rest beyond it. Dark, and therefore recently formed ice, occupied some conspicuous openings, though this could scarcely last beyond the next tide.

December 3d. The temperature now began to decrease rapidly. The difference between Pastorelli's thermometer and mine, made by Newman (the same which I had with me on my last expedition), amounted to eight degrees, the former being 34°—, and the latter 42°—. I determined to test them by exposing a saucer of mercury to the atmosphere. In the course

of an hour it became dull in colour and flattened at its edges, and in two hours and a half more was frozen. In the interval Pastorelli's had fallen to 35° 5′−, and Newman's to 44°−. After this test the one last mentioned was fixed on a post about seventy paces from the ship, and thenceforth registered as the standard thermometer; the others, however, north and south, as well as one contained in a tin case perforated with holes and hoisted to the mast-head, being also noted in the log-book. The cold was now sufficiently severe to freeze some of the people as they were employed on the ice; the temperature being 49°−. However, being desirous to satisfy my doubts about the practicability of getting on shore, and as to the extent of the bay ice near us, I went on snow-shoes, and on arriving at the boundary of the floe, which just at that part was unaltered, found a narrow lane of water kept from freezing by the agitation caused by the moving ice. Thinking that the lane did not extend far, I skirted along it, first towards the west, and then more north, until I lost sight of the ship. In this distance, perhaps about six or seven miles, the breadth of the lane was much reduced, but a continuous crack, in places large enough to admit a boat, ran in an easterly direction further than I could venture alone. But what

most excited my attention was the comparative thinness of those portions of floe ice which had been detached from what we considered as our property; for though upon a hasty glance it looked thick and solid, yet a nearer inspection convinced me that this appearance was owing solely to a compact crust of snow, the ice itself being certainly not more than sixteen inches deep. Coupling so important a fact with the numerous fractures for three hundred yards from the extremity of the floe, there did not seem much reason to apprehend a protracted detention in what had hitherto proved a place of refuge and security. A thick misty haze from the water impeded the view towards Frozen Strait, but up to the most distant point there was a mixture of old and young bay ice, so that in the event of a fresh easterly breeze, there would be nothing to oppose our setting again towards Cape Bylot. The cold was so piercing that, although to prevent being frost-bitten I walked fast enough to keep up a dripping perspiration, yet on regaining the ship one of my toes was rather sharply touched.

December 4th. After divine service the people went to walk, according to custom, and being close to the young ice, one of them, a carpenter, was thoughtless enough to step upon it, and immediately sunk to his arms, which,

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being extended, checked his further descent. His cries attracted the attention of Lieutenants Smyth and M'Murdo, who, with Mr. M'Clure, being close by, instantly rescued him. The temperature at that time was 43°— in the air. He spoke of the immersion as having given a sensation of pleasant warmth, doubtless attributable to the difference (15°) between the water and the atmosphere. On being placed on the ice, his first request was to be permitted to sit down, and as in the absence of the officers he would in all probability have done so, he would inevitably have been frozen, perhaps to death. They, however, so far from acceding to his wish, compelled him to run; and when he was no longer able to do so from fatigue and the stiffness of his icy garments, he was forcibly pushed forwards until he reached the ship, where blankets had been prepared for his reception. These he declined, as he well might, for on disencumbering him of his clothes, it was seen that he was in a profuse perspiration, and thus, all apprehension being removed, the whole affair was converted into a jest. It was not, however, without a good effect, as affording a warning against incurring unnecessary risks for the future.

December 8th. The interval since the last spring-tides had been free from any striking dis-

turbance of the ice, and now that they had come round again, we were nearly in the same place as before, the only change being, that the ship's head was turned something more in shore. The calmness of the weather, so different from what had hitherto been experienced at this period, excited general observation. On most former occasions the usual attendants of the spring-tides were squalls and boisterous gales, charged with snow and drift. But now every thing was still except the dull grinding of the ice along the rocks—a sound which time and use do not familiarize, but which still comes like a warning, useful, perhaps, though disagreeable. It was odd enough, that having made a large kite for the express purpose of sending up a register thermometer, we had not even wind enough to raise it. A faint aurora was seen during the night for a short interval, but that phenomenon, so vivid and brilliant in the territories of the Hudson Bay Company, is evidently rare in this locality. An evening school for the men was instituted under the superintendance of the first Lieutenant and occasionally visited by myself.

I ought to mention, that though our substitutes of stoves on the lower deck answered tolerably well, yet they did not keep the place effectually dry; for notwithstanding our tank

condenser and other precautions, the most unremitting attention of the proper officers could not altogether prevent the accumulation of moisture in particular spots. In such cases, our only remedy was to use the stoves belonging to the boats, and as these, having no funnels to carry off the smoke, almost suffocated us, it will be readily believed that nothing but necessity induced us to resort to them. It was found, moreover, that the hot air from below froze against the inside of the housing, producing a most disagreeable effluvia: to counteract this, a square hole was cut in the roof of the housing, which being opened occasionally had the desired effect. But these inconveniences were trifles in comparison with what might have been expected from the failure of the heating apparatus.

Though the clear weather which so unexpectedly continued was free from fresh winds, yet the tides separated the ice, so as to leave open places in various directions. Through the night there had been a squall or two from the south-east, and on the morning of the 10th a broad lane of partly open water was seen to extend round the floe to seaward, and to maintain a continuous line directly towards the land, east of Cape Bylot. Ice and a water sky were observable beyond that again, but there was no connecting channel or opening from the one lane to the other.

Our own position was something nearer the rocks, and moreover a little to the westward.

There being now, as was thought, wind enough for the kite, it was sent up, but as in repeated trials it only mounted about two hundred and fifty feet, we desisted. It was evident, indeed, that the wind only prevailed to that height, which was also, according to appearance, nearly the height of the dark vapour surrounding us.

It had been remarked for a considerable time, that though the water immediately froze everywhere else, yet on the larboard beam of the ship, about ten or twelve feet from the bends at the base of the snow embankment, there was always sludge, or on its removal, salt-water in its place, though the ice beneath was solid. I remember three instances of the same kind in rivers, where, notwithstanding the low state of temperature, the surface for some distance, near particular spots, was invariably so moist, that our snow-shoes were coated with ice, which it was necessary to scrape away. In the present instance, the phenomenon was not confined to any precise period, but existed through the neap as well as the spring tides. The days now dwindled fast away, the sun being only visible for a few minutes at 11 o'clock. It rose above the edge of a serrated hill, and in favourable weather, brightened the gloomy outline. Its altitude was 2° 10′.

December 12th. The floe had nearly resumed its old position, and was steadier than of late. In consequence of this, two of the people reached the shore over the bay ice, which for upwards of a mile was much thrown up and packed. To seaward, indeed, a very visible reduction of the floe had taken place from sheer pressure, which in many parts had ploughed it up and broken it into comparatively small pieces. The wind having increased enough to accomplish the raising of the kite, it was sent up with a self-registering thermometer. This showed a difference of eight degrees greater cold at twelve hundred feet perpendicular than on the ice, the figures being zero, and eight degrees minus. It may be remarked, also, that the spirit thermometer at the mast-head, which had hitherto during the recent weather, when the wind did not extend beyond the surface, indicated less cold than those on deck, stood, when the kite was up, at three degrees plus, or greater cold than below, agreeing in this respect with Six's.

December 13th. The ice remained almost stationary, and enabled one of the officers to reach the shore. Here he saw a reindeer, which at first bounded from him, but soon, as if not quite convinced that it had cause for alarm, turned round and trotted back again, gazing and moving slowly on until Mr. Gore, having crept

on his hands and knees near enough, killed it at the first shot. His exploit had been witnessed from the ship, and some men were immediately dispatched with a sledge to bring on board the unlooked-for addition to our Christmas fare. It was very lean, and when skinned, only weighed 60 lbs., the head included. This event, however, raised the emulation of our sportsmen, of whom several started early on the following day, but they saw only three wolves, which made the vallies echo with their howling. The weather was still fine, and the thermometer high, varying from 20°— to 5°—, which, without wind, we thought satisfactory enough. The extreme edge of the sun's upper limb was barely visible now above the lowest hill.

A tranquil interval of uninterrupted clear weather followed, and all anxiety was set at rest by the firm adhesion of the ice to the land, which was now almost daily visited either for exercise or amusement. A few more deer were seen, and a Polar hare as well as two white partridges shot. Lines also were set for fish, but in this attempt we failed. A young fox had been slightly wounded and caught. It was put into an open snow hut and secured, but though in the night it got loose, it made no attempt to escape; on the contrary, it diverted itself by running round the ship, and quietly retreated to

the hut, where it soon burrowed. When any one attempted to caress it, the little creature made a half stifled snarl, and snapped, but not viciously, at the extended hand. It rejected biscuit, but devoured a tallow candle with avidity and seeming satisfaction.

From our proximity to the shore, the sun had not been visible since the 12th instant, when its altitude a few minutes after 11^h was 1° $40'$; yet, according to our perception, little if any difference was observed in the diminution of daylight. At length the 21st December arrived; and as the moon would be at full on the following day, we began to fancy that another spring-tide would pass by with impunity. Indeed every circumstance concurred to confirm the opinion, until towards night, when the barometer began to fall with such precipitation as to prepare the minds of all for some uncommon occurrence. The mercury which had stood at 30 inches, had, in the course of eighteen hours, which brought it near the time of change, fallen to 28. 26. During this interval the wind had been light and unsteady, veering round the compass, but at 11^h A. M., December 22d, it settled at S.S.E., and soon blew hard. While these changes were in progress the whole sky had become overcast, and a dense haze, occasioned by the partial falling of snow, limited the view

to a very few yards. Hearing a rustling noise like the rushing of water apparently beneath us, we supposed that the floe was already separated, and that the consequences would soon be manifested alongside, but very shortly all speculations were merged in the reality before us. Since our departure from England no such storm had been experienced. Within an hour it raged with such fury, that not a man could face it. Several who endeavoured to perform some duty outside the ship were instantly frost-bitten, and obliged to return, and the officer of the watch in merely going from the housing to the tafrail to register the thermometers had the whole of his face frozen. Not that the temperature was so low as it had been a few days previous, for it was then 53° minus, and now only 30° minus, but the rapid extraction of heat was beyond endurance, and a very short exposure would have been certainly fatal to the hardiest.

As night advanced the barometer indicated a change, but the storm still raged like a hurricane, and covered the ship with snow drift. Our topmasts shook like wands, and the lee rigging was forced out like a bow : piles of snow were whirled on the lee side of the housing, until the chain which sustained the rough spar that formed the ridge pole broke, and the

accumulated weight fell; but the end of the spar fortunately striking the windlass, was stopped in its descent, and thus saved the barge, which otherwise must have been severely if not irreparably injured. As the wind was directly off shore, there was no great cause for apprehension as to the holding together of the floe, unless indeed the drift should cause sufficient open water to admit of any sea rising, for in that case the result was certain. Though the fury of the tempest gradually abated, it was not entirely exhausted until the 24th. Then the sky was again serene, and a tolerably clear view showed us that instead of having been driven out towards Frozen Strait, we were actually twelve or fourteen miles to the eastward of Cape Comfort. This can be accounted for only on the supposition that the flood-tide had come from the Welcome through Fury and Hecla Straits, and, taking the channel of the Frozen Strait, had met the course of the gale nearly at right angles, and thus produced a mean line of direction for the ship between the two, which in fact answered to the position.

Our floe was slightly cracked within a few yards from either side; but in other respects it looked more extensive and firmer than ever. This was verified by examination, for the high tide had raised the entire body of old and young ice to

the very rocks, and with the aid of the gale, the whole mass having been driven away, an interval was produced, which was already firmly frozen over. As to the rest, no water was visible; but what gave us infinitely more pleasure, the sun peeped over the distant mountains, gladdening us with his returning beams, after a short absence of twelve days. It was a glorious and a joyful sight, when we considered that each day would make its influence more felt, and that at last, having liberated us from our crystal bonds, it might light us to a happy issue of our labours.

Sailors, it is proverbial, are naturally light hearted, and have in general a great flow of animal spirits; but in this respect ours most assuredly differed from their brother tars. Whether this arose from the services in which they had been brought up, or from their never having been subject to the salutary influence of naval discipline, I know not, but certainly their want of cheerfulness was not attributable to any lack of example or encouragement on the part of the officers. For about six hours every day except Sundays, they were kept at some easy work on the ice, as was absolutely requisite for their health; but it was in vain that we endeavoured to lead them into the wholesome habit of amusing themselves with games or dancing, to cheer their

spirits, and while away the long hours of our winter evenings. The most trivial cold or other complaint induced despondency, and an attack in the joints of the legs and limbs attended with extravasation of blood, for which it may be remarked there was some difficulty in accounting, excited the most discouraging apprehensions. Under these circumstances, I was not a little delighted when informed that they had contrived, in imitation of the officers, to get up a play, and had appointed Christmas Eve for its performance. In due time two farces were announced for representation, the "First Floor" and the "Benevolent Tar;" and these went off with unbounded applause in a stifling atmosphere between decks, though outside the thermometer stood at 30°—.

Christmas Day which succeeded, was duly and religiously observed; neither were the personal comforts, *more majorum*, neglected, for, as we were on two thirds' allowance, I directed a double portion to be served of all but spirits, and thus gave the men a treat without intoxication. The officers also dined together; and, among other luxuries which the providence of the caterer had furnished, was a haunch of the rein-deer, shot by Mr. Gore, and what every one most anxiously looked forward to, a smiling plum pudding, the considerate and substantial gift of Sir James Gordon's amiable family, who in this way had

largely contributed to our comforts. With these incitements to enjoyment, no wonder that care was forgotten; mirth prevailed, friends were toasted, home remembered, and the evening passed quickly and happily away.

December 26th, some occasional gusts of wind came from the south-east, and as well as the mist over the land would allow us to judge, we seemed to have gone a little to the eastward. The severity of the cold daily increased: the temperature was 44°—; and as the effect of this was aided by strong winds and gales from the north-west, it is not surprising that we felt it more acutely than formerly. All occupation outside the ship, except for amusement merely, was now abandoned, for notwithstanding the unremitting endeavours of the officers to keep the men in sufficient exercise for the rapid circulation of the blood, such was their perverseness or sluggishness, that though constantly frost-bitten from mere want of exertion, they would lounge about, when left to themselves, with the listlessness which belongs to a tropical climate. One expedient proposed was the game of football, and every day, the whole crew were made to play at this active and amusing diversion with the officers, who left nothing untried to encourage them. Still in spite of all our efforts, fresh men were daily seized with numbness of limbs, affections of the gums,

and other symptoms of scurvy. The gunner, Mr. Donaldson, was in a very feeble state, not being able to walk more than a quarter of an hour without assistance ; and many more were limping and complaining of general debility. As the most sedulous attention had been bestowed, both as to the quantity and the quality of the clothing of every one, we were satisfied that this unwelcome visitation, from which recent voyages to this quarter have been for the most part happily exempted, could not be attributed to any deficiency in these respects. Neither could it be ascribed to any deficiency in quantity or sameness in kind of food, since fresh preserved meat with maccaroni or rice, pickles and lime juice, had been issued twice a week. But that nothing might be omitted towards the eradication of the evil, the last named article was now directed to be served out three times, and an extra quantity of preserved soup, cranberries, and other fruits in our possession, considered to be anti-scorbutic, were likewise placed at the disposal of the medical gentlemen. As it was necessary to prohibit the use of spirits to such as were attacked, a privation which few sailors like, they were apt to conceal their situations, until detected by their limping. I therefore directed Doctor Donovan to examine the whole crew, when only two or three additional cases, and those slight, were dis-

covered: this system was continued afterwards at stated times, independently of the daily inspection at divisions. Hitherto the officers had escaped every complaint, although two were now temporarily indisposed from a return of attacks to which they had been previously subject in other climates; yet as these would probably have manifested themselves anywhere else, they did not create the same uneasiness as the former. I do not feel myself competent to pronounce in what the malignant disease had its origin with us; but when it is considered that the difference of temperature, between the outside and inside of the ship, amounted frequently to one hundred and ten degrees, that the air outside was pure and extremely dry, whilst that inside was fetid and excessively moist, there seems to be good ground for presuming that this was, if not the source, certainly a great aggravation of the evil. The total failure of the warming apparatus had indeed proved a serious misfortune. The stoves were just sufficient to produce a warm current about the central line of the deck, whilst the sides were cool enough to convert this into vapour, which, having accumulated within the cabins, streamed down the sides and from over head, until they were half afloat. If open stoves were brought down to dry up the vapour, we were half suffocated by the sulphuric odour of the coals; and

the sick, who had no other retreat, were tortured. Condensers of various kinds had been tried and some were still continued; but at last it occurred to me that it would be worth while to try the effect of a long canvass funnel, fixed on the top of the doorway and carried above the housing, in the hope that a considerable part of the impure atmosphere below might thus be carried off. This was no sooner fixed than the advantages were at once perceptible; a continuous stream of vapour rose through it resembling smoke, for which, indeed, a novice would have taken it. A difference of temperature of eighteen degrees was the consequence; but, for the first time, we could see along the whole length of the lower deck. The two following days were so bitterly cold, the wind still blowing fresh from N. N. W., that no exercise could be taken outside the ship.

On the 31st the wind veered a few points to the north, but with scarcely any diminution in force, and we were confined to the semi-circular space inclosed between snow walls on the larboard side of the ship, and called humourously enough "the Court-yard." But notwithstanding foot-ball twice a day and a swing from the bowsprit, which, as a novelty, was for a time much used, the liability to pains in the legs still continued; to obviate which, still further precautions were taken against damp clothing by fitting up a dry-

ing-room, and requiring every man to hang up his clothes there on coming in from the outside air. That there might be no evasion or remissness on the part of the more negligent, proper officers were specially appointed to see these directions carried into execution. And thus uncomfortably ended the fourth month of our imprisonment, and the last of this disastrous year.

CHAPTER IV.

Extraordinary Disruption. — Anxieties. — Rapid Change. — Commotion. — Masquerade. — Results of Commotion. — Temperatures. — Invalids. — Anxiety for the Floe. — Advantages of Situation. — Death of a Sailor. — Reflections. — Desolation of the Land. — Curious Meteor. — Land Excursions. — Tracks of Animals. — Increase of Sick. — Precautions. — Phenomena. — Invalids. — Spirits of Crew improve. — Weather. — Grinding of Ice. — Health. — Undercurrents. — Floe diminishes. — Phenomena of Ice. — Callosity of Limbs. — Intensely cold. — Influence of Sun. — More Limpers. — Death of Mr. Donaldson. — Fine Weather. — The Coast. — Soundings as before. — Set of Current. — Heavy Gale. — Gale abates. — Holes of Water.

The 1st January, 1837, which, at the request of Mr. M'Clure, was duly ushered in by sound of bell, brought with it more auspicious omens. After a week of storm and drift, in which all around had been enveloped in impenetrable obscurity, the barometer had now risen to the unusual height of 30. 70, betokening a change which the day fully realized. There was a perfectly unclouded sky, a bright sun just seen above the mountains, and a heavenly calm. For the first time too, the coast, from which we might be ten miles distant, was now visible; and we had the agreeable satisfaction to know that we had been carried to the eastward with the entire

body of ice, not less than forty-five miles, so irresistible was the power of a heavy gale and a spring-tide over the boundless ranges of ice, which were thrown up in chaotic confusion around us. Suddenly a portentous crash, followed by a loud, quick, and rumbling noise, rent the floe in various directions, and even within one hundred and sixty yards from the ship. Strange rushing sounds, too, were heard throughout the night; and in the morning of January 2d, the openings were found to be much wider, and many new cracks threatened a further diminution of our now circumscribed floe. It is remarkable that in the meantime there was not the lightest breath of air; nor can I ascribe any other reason for this extraordinary disruption than a possible compression or stoppage of the ice, by the Fife Rock on the one hand, and the coast on the other. It may be also, that there were shoals inshore of us, though, on sounding, it required one hundred and fifteen fathoms to reach the bottom. Towards noon, a breeze sprung up from the S. S. W., freshened, and in the evening fell again, without producing any sensible effect on the ice. In the night a faint aurora displayed itself; and, on the following morning the appearance of another point of land to the eastward showed us that we had receded still further from the off shore. All our anxiety,

however, was now centred in the floe, which to our regret we beheld still further contracted by several other lanes of water, or rather young ice, within a short distance from the ship; while towards the horizon, and again in shore, the body seemed to be more compact, although, the whole of yesterday, a long line of dark vapour was observed rising from that place. Thus, the same substance that had remained firm and unbroken throughout the raging of the storm was in a few hours of calm all shattered and disjointed; and the sense of security which a day or two ago had cheered us in the midst of our discomforts, was suddenly, and at a time when it was least expected, converted into distrust and apprehension. Such are the strange caprices of Polar navigation, and such the revolutions of feeling to which the adventurer is continually subject! Happy is the temperament which can preserve its equal balance between the extremes of hope and despondency.

The barometer had reached the unusual height of 30 in. 84.; and what is equally singular, the thermometer rose from 34° − to 13° −, under the influence of a very clear blue sky and calms, a fact utterly at variance with all my former experience. The sun rose above the mountains to the southward at 10h 15m A. M. The extremes of land at noon bore from S. S. E. ½ E.

to about W. N. W., and the distance from the nearest point was estimated at fifteen or seventeen miles. Until night the ice remained almost stationary, but a grinding noise was then distinctly audible to the eastward, which with temporary interruptions continued for many hours. The aurora was frequently observed in the south-east quarter, flitting to and from the zenith, but had nothing remarkable either in colour or appearance.

As the morning of January 4th dawned, a great crashing intimated that some serious change was in progress, and on making the tour of our sadly curtailed floe, we found that the western opening had closed a little, while that on the larboard bow was considerably enlarged. We had thus been again favoured; for the compactness of the ice, immediately around us, was preserved by a wide lane of open water between us and the land. So rapid had been the transition that, except one part of the edge, not a particle was left to tell where the large tract of bay ice, brought with us from Frozen Strait, had been; the space which it had occupied being converted into what was not inaptly compared to an extensive lake. The light breeze from the eastward could scarcely have effected this, which probably therefore was partly the result of current or tide. The same cause, whatever it was,

had carried the ship a few miles to the west; for at noon the observed latitude was 64° 51′ N., and longitude 82° 15′ W. Thermometer 11°—. Weather clear.

For three successive days the ice around us opened and closed so as frequently to leave our small floe entirely insulated; at each closing, however, it was but too evident that we were losers by the concussion. Fortunately, at least as we supposed, the weather though overcast remained almost calm, leaving us exposed only to the action of the spring-tide, which on this occasion (from what cause we knew not) produced no further disturbance than to send us something nearer to the shore; a remarkable cliff being now not more than seven or eight miles distant. On the night of the 7th, a moderate breeze from the north-west created a terrific din immediately astern of the ship, and so great was the pressure that the ice was actually ploughed up ten or twelve feet, while the rumbling and crashing underneath and along the surface effectually marred our rest. Daylight of the 8th exhibited the same opening immediately ahead, and the floe diminished; still as many parts of it consisted merely of frozen sludge covered with snow, which could not of course be expected to offer effectual resistance against the battering and pressure of a more solid substance, we were not with-

out alarm for its durability. A few of the men were attacked by the same extraordinary rigidity of the muscles of the legs, which I have spoken of before. Mr. Donaldson, and Walker, one of the seamen, were in a very critical state. All who were unable to walk were dragged about on sledges for the benefit of air; and improvements were continually suggested and carried into execution for adding to the dryness and wholesomeness of the lower deck. Nor were our efforts relaxed to cheer the spirits and divert the minds of the crew. Another masquerade was got up and went off with much spirit and humour, aided not a little by the introduction, in character, of several comic songs from the pen of Mr. Smyth. The barometer had fallen a little, but the temperature of the air was mild, having ranged lately from 2° to 11°—: wind westerly.

Sunday had been spent in the accustomed exercise of religious duties, and in the evening, which was undisturbed by ice or wind, the aurora was powerful enough to shed a soft light on the pale snow. For the most part it was generally diffused; but at one time it concentrated itself near the north west, from whence it shot up towards the zenith in beams and pencilled rays, finally settling in an arch from E. N. E. to S. S. W. Towards 11^h P. M., and at intervals during the remainder of the night, the commotion

and grinding of the ice around us were painfully distinct; and, although the light airs above had prevailed, yet to our utter amazement, the first beam of day on the 9th January displayed the high ridged cliff, which I have before mentioned, within three miles of the ship. What had become of the four or five miles of ice which but a few hours before had intervened between us and the same land, was beyond our comprehension. All we knew was that it was there no longer. An attempt was instantly made to get soundings through the fire-hole, but this was frustrated from the under part being entirely blocked up by ice. However, a lane or rather hole of water ninety fathoms ahead, answered our purpose, and the lead struck upon a green slimy rock at seventy fathoms. Along the surface of this opening, some light pieces of ice were setting at the rate of two knots directly south, for the shore, agreeing in that respect with the known set from the north, and Fury and Hecla Strait; this would satisfactorily account for the line of drift as well as for the accumulation of ice generally observed along Southampton Island. At noon there was still pressure against the north edge of the floe, which after crumbling up to some height, at last fell over. Barometer 30. 14. and thermometer 7°—. The constant motion of the ice had precluded the possibility of making satisfactory observations

with the dipping needle, on account of the time necessary for completing the set. But the same difficulty did not apply to Fox's instrument, with which the dip had been observed November 16th 1836, in latitude 65° 10′ N., and longitude 83° 17′ W. to be 87° 14′, and the intensity 58° 22′. And on January 6th, off the ridged Cliff, the same instrument gave the dip 87° 3′, and intensity 58° 21′.

It may be remembered that I spoke of an extraordinary oozing of water alongside, for which no satisfactory reason could be assigned. This had now ceased, but not before the following experiment was tried by Messrs. Stanley and Mould.

The temperature of the air was 9°—, and of the water in the fire-hole 17° 5+, while that from the hole alongside was only 1° 5+.

A 1½ ounce vial filled with boiled snow water filtered through lint, weighed, independently of the vial, at a temperature of 51°+. 734. 75 grains. The same quantity of water from the hole alongside weighed 799. 25 grains.

The weather now became gloomy and overcast, with a variable wind, which, after flitting round the compass, at last remained for a time steady at S. E. The necessary consequence was, that we were driven slowly along shore to the westward; for no long time however, for the fickle element soon veered again. Our attention was now chiefly directed to the sick, who though

comparatively few, yet remained on our hands. A pure and equable temperature was the thing most required, and unfortunately most difficult of attainment. A snow hut, at the requisite warmth, could not be kept free from vapour, and our only resource was to screen in a place on the forecastle under the housing, which with a stove in it we thought might answer. The project was accordingly carried into execution, and two of the greatest invalids slept there on the night of the 10th; but though the weather was rather mild for the season, the interior temperature could not be raised beyond 45° + : nor could this, which might perhaps have been sufficient, be maintained, in consequence of the necessary ingress and egress of the attendants and visiting officers. Those who were able to support the cold remained until the next day; the weaker patients returned to their old abode on the lower deck.

Daylight of January 11th shewed us abreast of the ridged cliff, which the westerly breeze was driving us past, at a distance of about three or four miles from it. Beyond was a kind of open bay, terminated by a rocky bluff headland nearly ahead, and closing the view. Immediately off the latter, as well as farther east, there was all the appearance of a water sky, though it was hardly possible to imagine that there could be any thing more than a few holes or lanes so far from Hudson's Straits.

Our experimental hospital having proved a failure, we now determined to build up a small cabin on the larboard side of the forecastle with all the spare plank and spars we could afford; and though we could not expect the external air to be excluded as effectually as might be wished, yet we were not without hopes that, with the aid of a covering of sails, the place might be made tolerable. Night came, and in its train, wind and drift; the land, however, was just distinguished abeam at 8^h P. M., as well as could be judged not further off than before. Towards midnight there must have been immense pressure from the northward, as the ship not only creaked about the afterpart, but heeled over to starboard; and this circumstance reviving all my anxiety for the stability of the floe on which, thus close in with the shore, our safety in a great degree depended, altogether deprived me of sleep. Morning, however, of January 12th arrived, and found us still imbedded within three miles of the beach to the eastward of the Ridge Cliff, with soundings in seventy-eight fathoms of mud and sand. We had been set into the outer line of a bay, with the same headland before us about eight or ten miles away. Sloping from the Cliff was a continuous deposition (as it seemed) of coarse gravel or shingle, through the surface of which there cropped out at intervals craggy black rocks. Connected with these, again, were vari-

ous rocky hills, separated by vallies, and reaching to the headland, the distance being crowned by mountains less high and more rounded than those further west.

January 13th. Very little alteration had taken place in the floe, and our own position remained unchanged. This for the present was exactly as we wished, for our onward progress to the eastward might have carried us into a less interrupted space, and therefore within the influence of a stronger tide; and as the floe in such case must inevitably have been broken up, we should have been cast loose too early amidst difficulties most harassing, if not inextricable. To be thus quietly arrested, even though not beyond the next twenty-four hours, was a matter for which we were sincerely grateful.

A sailor, named Graham Walker, had been for some time under the care of the medical gentlemen who, at first, had good grounds for supposing that little was the matter with him. However, he was treated as a sick man; and for want of exercise, or by some means or other, he soon contrived to render himself so in earnest. Unhappily the symptoms shortly after became scorbutic, and the man being of melancholic temperament, and utterly incapable of being roused or cheered, grew daily worse. Yet his appetite continued good until within the last few days, and

even on these he always ate some nourishing diet. This day, however, at 9^h P. M. he died without suffering, and indeed so calmly, that those in attendance were unconscious of the moment of his departure. Such visitations are always melancholy, and it was natural that in our case a more than ordinary impression should be made. Isolated as we were from our fellow-creatures, and at the mercy of a power over which we had no control, who could help feeling that his hour also might shortly come? At 10^h A. M., on the 14th, the officers and crew of H.M.S. performed the last mournful duties towards their shipmate. The body was conveyed on a sledge to the extremity of the floe, where a grave had been dug through the ice; and the solemn and affecting service for the dead having been read, the remains were committed to the deep.

In the afternoon I went on shore, though not without some trouble and scrambling. It was gratifying to observe that, separated and curtailed of its fair proportions, as our floe had been, yet many of the original pieces maintained nearly the same relative positions as when part of the mass, thus forming an additional barrier between us and the shore, which I now found was not more than two miles and a half distant. Along the beach between the jutting rocks the ice appeared to have been forced up full twenty

feet; and, where the resisting barrier was precipitous, huge masses had been successively lifted up, pile on pile, until they presented the appearance of bergs, for which indeed they were taken. A stranger combination of ruin and confusion with the softness and harmony of the most beautiful tints, from the faintest emerald to the deep cerulean blue, it would have been difficult for the most imaginative mind to conceive. Then from the sterile summit of the hill to gaze, far as the eye could stretch, upon a dreary plain of rocky ice, relieved only by the frost-smoke issuing here and there from a few holes or lanes of water, and suddenly to turn to the small dark speck which denoted the ship, the abode, alas how frail! of living men imprisoned amidst this "abomination of desolation." What a multitude of reflections rushed into the mind!—the might of nature—the physical feebleness of man—and yet again the triumph of spirit over matter—man, trusting in his own unquenchable energy and the protection of an omnipresent Providence, braving nature in the very strongholds of her empire, and if not successful in the encounter, yet standing up unvanquished and undismayed! It was indeed a scene not readily to be forgotten.

The rocks seemed to be a striated granite singularly placed; some having a parallel inclination with open spaces between, and others again

being placed directly across, or almost at right angles to each other. The intervals between the rocks as well as the hills consisted entirely of what in summer would be a coarse loose shingle with rounded stones, and with so little soil, that only in five or six places did I observe any symptoms of vegetation, if short thin grass and a few yards of moss even deserve the name. From the top of the nearest range a small lake was visible, which discharged itself over some steep rocks into a narrow bay or harbour, whose entrance lay between the ship and the headland. It seemed to be covered with smooth bay ice, or ice not yet broken up, but it was evidently exposed to the north-east winds. From the brink of the headland, along the tops and curvatures of the inland country, was an uninterrupted line of utter barrenness and desolation. Not a bird, not an animal, not a solitary foot-print, was there to indicate the presence of a living creature. Not far from the headland was what looked like a narrow lane of water, while in the remote distance in the direction of Fox's channel I fancied there was the loom of land, which considering how greatly objects are refracted in this climate, was not impossible.

On my return, I learned that at $2^h\ 55^m$ P. M. Doctor Donovan and Mr. Mould had seen an extraordinary meteor in the clear blue sky, at the

moment of detection bearing north at an altitude of about 23 degrees; it was then in rapid motion, and having ascended to 25 degrees or thereabouts, it declined, its course being something of a paraboloid. It was, as seen, of about the size of a man's hand, and its colour was that of a pale emerald. When it separated, which it did at its lowest altitude, it dispersed into three parts, each of the same pale tinge, and vanished from the sight. Having myself been travelling south at the time, I was unfortunate enough not to see it. In the morning however, at a quarter before ten o'clock, while standing on a hummock about seventeen feet high, and looking to the east, I had observed the upper limb of the sun, as it filled a triangular cleft on the ridge of the headland, of the most brilliant emerald colour, a phenomenon which I had not witnessed before in these regions. In about five minutes afterwards the sun rose clear and bright, over the summit of the same hill, and the whole sky was free from clouds and apparently from vapour; though, as I previously remarked, I saw from the shore a lane of water near the Point.

January 18th.—During the few last days nothing occurred to vary our position. Several shooting parties had been on shore, and Lieutenant Stanley accompanied by Mr. Saunders,

went to survey the harbour already mentioned, which was subsequently named after him. It proved to be too much exposed to the north to afford the smallest shelter with a wind from that quarter; it was narrow also, and in the summer months would rarely be accessible on account of the ice, which, judging from last year, it may be presumed is usually set against it. Mr. Gore had been eight miles in the interior, and on his way passed a lake two miles long; the shortness of the day would not permit him to extend his excursion as he had felt inclined to do, if for no other purpose than to reach the highest hill, which, as usual to the inexperienced, the next always promised to be.

Mr. Fisher also, after being baffled in one attempt, contrived on the second occasion to reach the headland, thence called Cape Fisher, and after traversing several steep hills and crossing a frozen mountain stream, whose mouth was two hundred paces across, he came to a spot, whence the coast was descried in the form of a bay trending S. E. by S., while in the extreme distance the same officer, with the aid of a telescope, saw what he considered to be two islands stretching far out from the most southern point. The interval between, as well indeed as the whole space from the headland, presented the novel appearance of a smooth

dark and unbroken sheet of bay ice. From the Cape towards Frozen Strait, forming a wide semicircle as seen from the ship, was a continuous line of dense vapour, which clearly indicated open water, though the white gleam of ice might be easily distinguished beyond it; so that the crushing and crumbling which had progressively destroyed, separated, and almost pulverized so many miles of floe ice around us, and which providentially had ceased when within little more than a hundred paces from the ship, must have been mainly caused by the undulating motion proceeding from this open water, acted upon of course by wind and tide; for it may be remembered that the extraordinary grinding complained of, when the vessel lay to the westward, near Smyth's Harbour, took place only at such times and under such circumstances, as would point to a combination of the above-mentioned causes.

Our gentlemen had seen but two tracks of deer, with others of wolves, hares, and foxes; but what interested us most was the footstep of an Esquimaux which Mr. Fisher had endeavoured ineffectually to trace. If it were one (and it gave rise to as many conjectures as the memorable foot-print in Robinson Crusoe), it must have been that of some one who had wandered far out of his way in the eagerness of the chase;

since, as far as our knowledge went, the line of coast would scarcely afford sustenance to the most active and skilful hunter.

Our new hospital, or sick bay on the larboard side of the forecastle, had been completed three days, and with a boat stove kept always lighted in it, the temperature could be forced up to 70° +, which was quite as high as the medical gentlemen required. The two most debilitated invalids, Mr. Donaldson, and Alexander Anderson, had been immediately conveyed there; and though they had not yet derived the benefit that was anticipated, they felt more comfortable and were in better spirits. I was sorry, however, to see that the former was dangerously weak and evinced a disposition to incoherency, from which the worst might be feared. Neither did any of the others who had been attacked entirely recover; for although their general health was sometimes better, yet their legs continued discoloured, hard, and bent; the number of the sick moreover, was continually swelled by new accessions, and at last amounted to one sixth of the crew. Five or six of the officers also became slightly affected, thus establishing incontrovertibly that the evil, from whatever cause it originated, was at all events not attributable to any difference in food. However, to put an end to all fancies on this score, and to prevent the possibility of cavil, I gave

orders for the issue of an extra allowance of preserved meat to all hands, together with cranberries, pickles, mustard, vinegar, spruce-beer, and lime juice, so arranged that some antiscorbutics might be taken every day. The crew moreover were kept constantly engaged either in work or amusement. The lower deck, which, though not exempt from vapour, was yet as dry as could be reasonably expected, was kept clear almost the whole day, except at meal times, and the hammocks were hung up at 9^h p. m., and taken down at 6^h a. m. Excursions were made to the shore under the direction of proper persons, and on the return of the parties, officers were appointed to see that every man entirely removed the snow from his clothes, and then put on dry ones on going below. I am particular in detailing these precautions, in order to show that this unexpected visitation was principally to be ascribed to the failure of our unfortunate warming apparatus, which though perhaps suitable enough for a temperate climate, and places where in the event of an accident the means of reparation are at hand, was certainly not adapted for a service such as ours. Our stoves were placed amidship, and near the intense heat thrown out by them the deck and beams were dry; but not so at the sides, where the tubes diffusing general heat should have

been ; and the consequence was, that it was no uncommon occurrence to hear one speak of having filled a bucket with the water which streamed down the sides and ceiling of his little cabin. As a last effort to get rid of the fetid and impure atmosphere that lurked in the lower parts of the deck, I ordered a bell-shaped canvass funnel to be made, having the mouth or wide opening within a foot and a half of the deck, and leading through an aperture in the forehatch, from which it was carried through the housing in such a manner as to convey whatever it might be charged with, quite clear of the ship.

January 19th. For the first time since the new moon, the ice was heard to make a noise to the north-east. The weather however still continued fine, and nearly all hands went on shore for a run. At $2^h\ 4^m$ P. M. we had a parhelion, whose semi-diameter as taken from the sun's centre was 22°, the prevailing colours being orange graduating into red : and at $10^h\ 45^m$ P.M. Mr. Stanley observed a prismatic lunar halo, the outer diameter of which was 9° and the inner 5°.

January 20th. A few of the gentlemen went on shore with their guns, but met with nothing to reward them for their trouble beyond the benefit of the exercise. They reported that the ice

near the shore had opened out a little, and that some holes of water, besides one extensive lane, were clearly visible from the hills, for which information I was quite prepared, not only by the hint of grinding ice to seaward, but also by the near approach of the full moon. It would have been satisfactory to ascertain the true rise and fall of the tide at the full and change respectively, but this the under layers of ice effectually prevented, though by a rough estimate of the depression of the ice on the sides of the rocks, without, however, knowing the thickness of that ice, or whether it touched the bottom, a difference of between seven and ten feet was repeatedly remarked. In one instance, indeed, Mr. Fisher's party were obliged to return by a different route from that taken in the morning, in consequence of the ice adjoining the land having sunk to a level too deep for a jump.

Our new funnel was put up and the deck somewhat improved, but still close. The temperature was 73°+, the dew point 65°, and the degree of saturation, as shown by the hygrometer, 786.

The invalids did not recover as I could have wished, nor did the two worst evince any decided or even encouraging change for the better. One man, who had been afflicted for upwards of a month with the prevalent complaint of a dis-

coloured and rigid leg, but whose health in other respects had been good, was suddenly seized with syncope as he was walking; and though he recovered in the course of a few minutes, yet in his case, as in that of the other patients who were similarly affected, it seemed to aggravate the disease, or rather to reduce the power of struggling against it. That the rest of the crew, and the few who were affected but slightly, had rather gained than lost on the score of cheerfulness and good spirits, I was to-day agreeably convinced; for, while taking my accustomed evening exercise within the snow-wall inclosure, I was surprised at hearing the sound of music somewhere on the floe, and before I could get outside the gallery, the whole crew, headed by the armourer, playing the fife, and under the orders of Mr. Vaughan, the boatswain, marched up in file, singing the song of the "Southern Breezes." They halted with a hearty laugh at the word of command, as given out by some one in military fashion, Halt, front! and gave three hearty cheers; then placing the fifer on a hummock, they finished with a country dance, in which the slipping, sliding, and falling of the performers gave occasion to much mirth. It may be imagined that this was to me a most agreeable sight, and that I did not fail to pronounce my commendations, and to encourage a repetition.

During the night the breeze occasionally freshened, and the sky was more or less overcast. The 21st brought the spring-tide, but up to noon there was no difference in the ice perceptible from the ship, though one of the people had seen, while walking, a narrow lane caused by the separation of the ice, near the shore. Wind W.N.W., squally; thermometer 21°, and cold; barometer 29. 72. The night was somewhat variable, the wind occasionally freshening, and then decreasing again, but towards the morning of January 22d the weather became clear and almost calm, and we were left, much to our satisfaction, in the same situation as before. We had reason, indeed, to apprehend that the wind which generally accompanies the spring-tide might be boisterous enough to blow the ship round the Cape; for the light and moderate airs which had prevailed throughout the last neaps, could not be expected to continue through the springs, our experience hitherto coinciding with the following remark of Ellis, (who, in 1746, wintered in Hudson's Bay,) as reported in Barrow's Chronological History of Northern Voyages: "It seems, however, that the severity "of cold is seldom felt above four or five days "in a month, and generally about the full and "change of the moon, at which times the

"wind is usually from the north-west and "very tempestuous." At noon a faint grinding of the ice was heard to the north. Temperature 24°−; wind W.N.W., light. Within the last week three common flies had introduced themselves into the midshipmen's berth.

January 25th. There is something to me inexplicable in the eccentric action of the tides on the north side of Southampton Island. For three days after the full moon the utmost disturbance which reached us amounted to a dull and distant grinding, easily accounted for by the prevalent westerly winds. But the last forty-eight hours had been nearly calm, though intensely cold, the thermometer having indicated 43°−, and the mercury having frozen in an artificial horizon. Yet now a loud rushing noise was heard beneath the ice three or four times a-day, agreeing, as it seemed, with the ebb and flow of a regular tide. The lane off Cape Fisher, which had been closed, was re-opened, and the ice outside our floe was lifted up with a singing or rather squeaking sound. This, again, at a later hour was followed by a distinct cracking, and then a hollow grinding: still we remained almost if not entirely stationary. Our number of sick did not materially increase, and

even of these the general health of several might be called positively good. They were almost free from pain, but could not get rid of the callousness of the part affected, which continued, in spite of every effort, as hard as if it had been thoroughly frozen. One man only (and his was more a rheumatic than a scorbutic case) had returned to his duty; on the other hand, the gunner, Mr. Donaldson, was in a declining and dangerous state, notwithstanding the unremitting attention of Dr. Donovan and Mr. Mould, who were themselves affected with the prevailing complaint, and even walked about with difficulty.

January 26th. There had been no wind of any consequence throughout the night, some part of which had actually been calm; and yet in the morning the ice, and consequently the ship, had been set to the eastward from a quarter to half a mile. Several lanes of water too were formed between us and the land, while a dark grey frost smoke extended some distance from the Cape to seaward. The weather was still fine, though cold, the thermometer being 44°−, and a mist or haze hung round the horizon. In the evening the wind blew from the westward, and afterwards veering to the south, got more squally, coming occasionally in smart gusts directly off the land, which, when distinctly seen at 4^{h} P. M., bore from S. E. to N. W. by N. The

barometer had for two days indicated symptoms of some change, for the mercury fell slowly, and on January 27th, at 10^h A.M. was 29. 22. while the temperature varied in the night up to the same hour, from 47°— to 34°—. It was then too misty with snow drift to make out the land clearly, though we could do so sufficiently to ascertain that we had been driven something farther from it than before, and more to the eastward. From this gradual falling of the mercury of the barometer over a period of nearly three days, and the fluctuations in the ice at a time of moon when the contrary was to be expected, I should conjecture that there had been boisterous weather in some other quarter, probably not very remote, and yet far enough for the intervening ice to qualify and counteract its further progress — an effect familiar to those who have been driven from a heavy gale into a pack for protection. The transition in such cases is often as sudden as it is agreeable; but the under motion of the sea continues for a considerable extent, though of course gradually diminishing in intensity. It was probably something of this kind which occasioned the singular movements above described. For an undulation beneath the surface of ice, aiding or opposing the current, especially about the hours when it was influenced by the tides, would be likely to produce such effects. I give this,

of course, as a mere conjecture, which however I thought it better to note down when the phenomena were before my eyes, than to trust to any after judgment, when the facts may present themselves less vividly to the mind, or be distorted to suit some theory.

At noon the Cape was dimly seen before the beam, and soundings were obtained in one hundred and fifty-six fathoms on a bottom of green mud. On the 28th lanes of water were seen in various directions, and we were sorry to observe that we had lost about sixty paces of the floe, to say nothing of the unwelcome appearance of a small opening of water at the edge of it astern. An officer had been round the floe and reported the inshore ice to be setting fast to the eastward, which led to an unfounded notion that we had rounded the Cape; the detection, for the first time, of an under-current, while sounding, having strengthened the conjecture. The set of this current could not be determined, in consequence of the many under layers of ice which caught and entangled the line. It is probably by an accumulation of such layers, cemented together in bights or bays, sheltered by projecting capes or headlands, and less liable to disturbance from currents and tides, that the very thick ice found in many parts of floes is formed; for we had ocular demonstration, that with a very low tempe-

rature and calm weather, in the severest portion of the winter, no addition of bulk takes place from the surface downwards when protected as our floe was by a hard coating of snow and drift. The doubling and packing of ice during gales of wind, and when exposed to severe pressure, as well as the growth of bergs and extensive fields, are phenomena which the attentive observations of modern voyagers have rendered familiar; and, by an extension of the above remark, another explanation besides the action of the waves (for the mere heat of the sun has little influence) is afforded, how it is that the destruction of the immense fields of ice is effected, not indeed by pointing out the agents of the destruction, but by showing how little may, in many instances, be added in successive winters to the bulk to be destroyed. The fact that no new deposition takes place underneath seems also at once to account for the decayed and wasting appearance, which every one accustomed to Polar navigation must have noticed in what is called the old ice, of which sailors will sometimes say—"Aye, sir, that piece is older than I am, but it cannot last above another summer."

January 29th. The weather, though fine overhead was thick about the southern boundary of our view, but from the aspect of a point of Ridge Cliff, which bore S. 82° 30′ W., it was

evident we had gone still more off shore. After divisions I inspected the decks as usual, and was happy to find the lower one comfortably dry, a result mainly to be attributed to the last bell-mouthed funnel, which carried off an amazing deal of vapour and impure air; indeed, with eight funnels, either for the stoves or vapour, constantly going, it would have been strange if some good effect had not been produced. Had it not been for the masts and rigging, any one a few hundred yards off might have taken the ship for a manufactory, for the vapour steamed forth in as great a volume, and nearly as dense as the smoke. The only drawback to the general comfort now was the unfortunate lameness that characterized the scorbutic symptoms. In this respect our list increased, though none, thank God, were worse; and the poor gunner, who lay still dangerously ill, with scarcely strength enough to change his position, seemed to be in better spirits. One third of the complement, including officers, were now affected with this extraordinary callosity of limbs.

At noon the barometer was 29. 37; thermometer 39°–. The night was particularly clear, and the stars were observed by Lieutenant Stanley to be freer from nebulæ and that dancing motion which he had always complained of

while making observations. Faint auroras, occasionally brightening up a little, were seen frequently, but without any of the interesting phenomena which I had been accustomed to observe in the inland regions of this latitude. The ice continued to move, more or less, at a little distance from the floe, while a zigzag crack had commenced at one part on the starboard quarter; and, after an eccentric course through some of the thickest and largest hummocks, not unlike the wild track of lightning, had turned round and ended as it had begun among the looser particles.

On the 31st January, we had been set far enough off shore to distinguish a distant point beyond Cape Fisher, the bearing of which at noon was S. E. (true) while the other extreme was west; the observed latitude being 64° 46′ N. and longitude 82° 19′ W. Happily for us, the weather continued beautifully fine, though intensely cold, the thermometer during several days having never been higher than 38° minus, and generally below 44°. This night, the register at midnight was 54° minus; but though thus coldly welcomed, the month of February was hailed by us with heartfelt gladness, as bringing us nearer to the day of liberation. The mercury froze in the artificial horizon; and such as were interested

in the experiment fired a pistol ball of that metal into a piece of wood which had been long exposed to the cold.

Now, as before, we found there was more grinding during the prevalence of calms, or light airs, than in a breeze ; for, the greater part of the evening and night of the 1st February, there was a fearful noise outside and even at the edge of the floe, and on examination the next day I ascertained that a further encroachment had been made ; and, from the uplifted waves of ice, and the confused and massive heaps thrown up or partly crushed, it was evident the force must have been irresistible. Many lanes of water were visible on the morning of February 2nd ; and though the thermometer was still low, the sun whose altitude was 8° 39′ 45″ at noon, began to produce some effect on the southern thermometer exposed on board though surrounded with snow, the difference between this and the northern one amounting to 15°. If any thing, the ship had gone a little nearer the shore. The variation was 60° 45′ west. On walking round the floe, I observed that some one had cut the figure of a cross on the overhanging and inner face of a huge wave of ice, left by a former pressure in that menacing attitude.

The wind having got round from N. E. to

S. E., and varying between that and S. S. W., brought with it an overcast sky and fresh breezes, approaching often to a smart gale, which soon caused a separation between the sea and land ice, and drove us slowly off shore. On the 4th the distance had increased to ten miles; and, from a partial glimpse of the land, it was conjectured we had also moved seven miles to the east, a result exactly similar to what had been before experienced from an off-shore wind, and the reasons for which have already been assigned. Although the barometer had predicted with such accuracy the heavy gale which had driven us from the westward of Cape Comfort to Ridge Cliff, on this occasion it had not yet indicated the breezes experienced since the 2nd instant; but what was remarkable enough, and forced itself unwillingly on our notice, was the general effect on the sick, who all complained of being worse. The temperature, it should be observed, had risen to zero on board, and 2°— on the ice; at the same time there was a wide lane of water between the ship and the land. On inspecting the crew at divisions this morning, I was sorry to observe more people limping, while not one could be got out of the list. It was beyond our comprehension or control. They had abundance of provisions, the allowance having been again recently

increased, with antiscorbutics of various kinds; their bedding was shaken and purified; they were never suffered to remain below in damp clothes; the deck was free from anything like a close atmosphere; persons were appointed to see them take sufficient exercise for health three times a day; and the men themselves were as cheerful as the temperament of each permitted. As a still further precaution, chloride of lime was put into the pump-well, which had never more than six, and generally less than three inches in it. We may be said, indeed, to have brought the disheartening malady with us in the person of one of the marines, who must have been strongly predisposed to the complaint, as he showed symptoms of it so early as a fortnight or three weeks after the expenditure of our live stock. Anderson, though improved in health, was unable to quit his bed, and poor Mr. Donaldson lay in a state of drowsy torpor, from which the medical officers had great difficulty to rouse him. He scarcely took any sustenance; and we could not contemplate the slow but marked change which was going on without gloomy apprehensions. These fears were but too soon verified; for after another day of lethargy, and beckoning away with his hand any attempt to give him nourishment, he may be said to have slumbered to death at the hour of six o'clock on

Sunday morning, and was the next day committed to the deep with the usual ceremony. His case was very different from those who were still suffering from indisposition, and who, with sound constitutions, were attacked with a local, and, as we hoped, a temporary complaint, brought on we knew not how; whereas Donaldson had worn out a frame originally strong and vigorous, in a succession of long and arduous services in the whale fishery, in the different voyages of discovery under Sir E. Parry, on board ships of war, and now finally in the Terror. Though leading what is generally styled a hard life, he had seldom if ever been ill; but when his constitution once began to break up, the symptoms of decline were the more marked and rapid, and he died at the early age of forty-three. Though the event had been long anticipated, it did not fail to cast a gloom over the spirits, which however yielded in some measure before the holy duties of the day, and the reflections naturally arising from them.

The wind had abated but once, when for a brief interval it fell calm, and the thermometer rose to 4°−; but in a few hours afterwards, viz. at 8^h A. M. on February 6th, the cold had increased to 29°−, with a fresh breeze from north-west and a clear sky overhead, though misty and indistinct with snow drift along the horizon.

We were at least five miles from the nearest land, and had been set and blown with the entire body of the ice so far to the eastward, as to have the Ridge Cliff for the most westerly bearing astern. At noon the observed latitude was 64° 38′ 30″ N., longitude 82° 01′ W., and soundings were obtained in one hundred and fifty fathoms, with a bottom of green mud. In the course of twenty-four hours we had altered our position eleven miles in latitude, and nearly twenty of longitude. The ice appeared to be drawing to the land, though no open water was seen near it, and the wind still continued on the quarter. The outline of the coast was more regular and sloping at the point, which, with an elevated and obtusely peaked hill, formed what seemed like islands, and were probably taken for such on a former occasion. Abreast of us were two bays. The wind having fallen considerably, the ship and ice continued to draw nearer to the land, but towards night the breeze freshened from N. W. by N., and we began again to drift to the eastward. The coruscations of the aurora were visible at intervals to the south-east. At clear daylight, it was perceived that we had been set round the comparatively low point described as forming yesterday the eastern boundary of view, and now saw at the extreme limit of vision ahead, a high bluff, disconnected from the

low land farther south. From the mast-head, with a glass, about two points of the compass presented a clear horizon, and then began the low land, which after making a long curve approached the ship to within four or five miles. This part not having been surveyed, many conjectures were made as to the probability of a passage to the south of the bluff land ahead, which it was further supposed might be found to lead into Evan's Inlet of Lyon. It was however impossible at our remote situation to form any conclusion, because, notwithstanding appearances, the clear space might be nothing more than the circular trending of the coast line, terminating somewhere about Seahorse Point. The change in the rounded and shelving outline of the hills was too remarkable to escape the notice of the most careless observer, though this did not seem to affect the soundings, which at noon were in one hundred and fifty fathoms, with the same description of mud as before. The extremes of land at the above hour were from E. 65° S., to W. 55° N., and the latitude was 64° 32′ N.

The whole of the 8th was foggy; nor did the weather clear until near midnight, when the aurora shooting up to the zenith threw a faint light around, and enabled the officer of the watch to catch a glimpse of the land, which he fancied to be nearer. At broken intervals there was a

rumbling and crashing noise as of splintered ice towards the southwest, which continued more or less until day-break of February 9th. The weather was still calm, and yet, when the sun rose, it was evident the ship and ice had been drifted to the eastward, at a distance of five miles from the land, which became lower, more sloping, and more free from bays. The soundings at 1^{h} P.M. were found in one hundred and fifty-two fathoms, and with a bottom of darker mud than before. The latitude observed was 64° 29′ N., and longitude 81° 46′ W., thus establishing the set of the current along the coast. In two instances we had been checked in our progress, and forced diagonally about S.W. by W. towards the land; and the coincidence of times at which this occurred pointed to the action of two forces, that is to say, the tide from the eastward in combination with the prevailing current from the north-west.

All our boats which, except the barge, had been necessarily kept hung at the davits, with a few indispensable stores in them, to be prepared for any sudden emergency, were now thoroughly cleansed from ice and snow, and after a minute and attentive examination by Mr. Smith, the carpenter, I had the satisfaction of learning that they were uninjured, and perfectly ready for service. They

were, therefore, restored to their places, and the upper parts covered with their sails as before. The northerly wind continued to blow fresh during the night, and in the morning of the 10th a lane of water was discovered at the edge of the floe astern, extending from thence to due south near the shore. In this opening a few seals were seen. In the forenoon two ravens were observed flying northward. At noon it blew a fresh gale, and the streams of snow-drift effectually shut out the land. As the gale increased during the day, it was conjectured we were setting to the southward, and throughout the night, and up to noon of February 11th, it blew hard. The barometer in the meantime had risen in the last twenty-four hours, from 29. 59 to 29. 70, while the thermometer on the ice had fallen from 18°– to 37°–; and, such was the keenness of the cold occasioned by the wind and drift, that it was at some hazard the officer of the watch could venture even to the registering station, though less than a hundred yards from the ship. Eddies and clouds of drift whirled incessantly round us, and caused the wood and spars to crack and split, so that on one occasion I thought we had got into shoal water, and the ship was touching. Neither could the people take their accustomed exercise

on the ice; and though sometimes a glimpse was caught of the land, all that could be ascertained was, that it was low, and seemed very much like an island. The latitude gave 64° 21′ N., from which, and the fact of the gale being north, there was every reason to believe we were drifting into the bay. Soundings gave one hundred and three fathoms, and the lead had struck on green mud.

This uncomfortable weather continued throughout the greater part of Sunday the 12th; but in the afternoon some of the people were able to walk round the floe, and in so doing discovered that a piece of ice one hundred and twenty yards broad and two hundred yards long had been separated from the western angle, and that there were several cracks striking in a direction towards the centre of it. Towards night the wind got round to the westward, and soon afterwards a loud grinding noise was distinctly heard in that quarter; and, in the early part of the 13th a wall of bay and other ice was seen at the western edge of the floe, which had been forced up perpendicularly to the height of eighteen feet, without, however, doing much damage. The mercury in the barometer continued to fall, and, as the breeze abated, some light snow succeeded and kept falling for several hours. Land

was discerned from S. S. W. to N. N. W., but too indistinctly for any satisfactory observation. Four or five holes of water however broke suddenly upon the sight, the largest to seaward, or in the direction of Fox's Channel, and the others between the ship and the shore to the westward.

CHAPTER V.

Valentine's Day. — Floe damaged. — Outline of Coast. — Alarming Symptoms. — Chaotic Commotion. — Tumult ceases. — Clearing Deck. — Dovekie shot. — Awful Peril. — Grandeur of Scene. — Expectation of Crisis. — Havoc spreads. — Desolation. — Ship remains nipped. — Turmoil. — Set of Ice. — Ship rights. — Ice Hills. — Bolts, &c. loosened by Pressure of Ice. — Flight of Birds. — Nautical Artists. — Divine Service. — Blows a Gale. — Imminent Peril. — St. Patrick's Day. — Ice fluctuates — Sir J. Gordon's Bay. — Peril of Two Sailors. — Flock of Ducks, and White Bear. — Death of a Sailor. — Baffin's Observations. — Flocks of Loons. — Improvement in Crew's Health. — Diminution of Snow. — Mr. Gore Snow-blind.

The 14th February, Valentine's day! By universal consent in the temperate regions of Europe, the harbinger of spring, the day when hope revives and the future begins to triumph over the past! Even with us, fast locked in the dreary wilderness of ice, amidst driving sleet and fog, the time was not without its influence, and I mark this day as the boundary from which we began to look forward to our final release. "How short the past, how long the future appears," is the trite and universal reflection; yet in my case the reality was exactly the reverse. When I looked back upon the past, (and it was the first time that I remember to have experienced such

a feeling), the time since we left England, though but eight months, seemed longer than any three years of my former not unadventurous life. Days were weeks, weeks months, months almost years. As objects seen through a haze appear more distant, so to me the past had a dim and shadowy indistinctness which magnified its proportions. There were no marks to separate one day from another, no rule whereby to measure time; all was one dull and cheerless uniformity of dark and cold. But from this date, on the contrary, the successive days being occupied in active and exciting employment, with continual novelties of situation, and expectation of something to come, seemed to fly with accelerated speed as each brought us nearer to the termination of our imprisonment. But I return to my narrative.

Our day of promise set in, it must be confessed, unpromisingly enough; for through the night a breeze blew from the N. E., directly on the land, and the mist and snow drift continued so thick, that there was no possibility of seeing at what part of the coast we were. The barometer too kept falling, and the wind increasing. At noon, soundings were obtained in one hundred and thirty fathoms, but the sun was too obscure to get an observation. About 2^h P. M. it being rather squally, a lane of water was formed along the edge of the floe one half round it, and the ice

seemed to be fast drifting to the south. During the early part of the night a lunar halo, slightly prismatic, and of 48° diameter was observed. Shortly after the wind veered more to the north, and with a rising barometer blew a strong gale, which remained unabated till morning of the 15th. From a severe shock, that was felt on board sometime in the middle watch, as well as various dull crackings about the stern frame and counter, I inferred that some commotion had been in operation among the ice. I was not, however, prepared to hear that an opening, commencing within a short distance of the larboard bow, had made its way to within forty paces of the ship, and then running diagonally across had absolutely bisected the floe; nor, on further examination, was this all, since, at the southern extreme, we had lost another large portion, broken off in a parallel line, while to the north innumerable cracks appeared in every direction. This was the most unpromising sight experienced from the time of our being frozen in, for there could be no doubt that the bulwark of our security had been shattered; and, as no instance had been known of a reunion of parts once separated from the mass, we could not but feel, though with an humble reliance on the mercy of that Providence which had hitherto sustained us, how precarious was henceforth our

condition. At noon, soundings were found in ninety-five fathoms, but no land was visible. The latitude, however, by a hazy sun, was 64° 21′ N. This day was remarkable as that on which our oldest invalid was rescued from the sick list, but though well in general health his leg continued crooked. A parhelion was seen, whose semidiameter was 23° : the barometer was slowly rising, and at length the sky began to clear, so that about 4^{h} P. M. land was made out to the south east, and also astern.

About night fall a lane of water appeared on the western extremity of the floe, extending round the northern part of it to south east. The night itself was beautifully clear, and soon after midnight quite calm. The barometer again fell, and at 6^{h} A M. a light air came from the south west. We had been of late so enveloped in mist and snow drift, that a fine day was quite a treat ; and after divisions and the usual inspection of the decks, all hands rambled about the floe, which now formed the limit of our excursions. I, also, as undisputed sovereign of the floe, (and never certainly was monarch more anxious to preserve the integrity of his territory, or more jealous of the smallest encroachment on his border,) went forth to make a survey of my icy domain. After tracing the various cracks from one extreme to the other, I was sorry

to find not only a complete verification of the former report, but additional fractures also, of a very threatening aspect. The pressure had been enormous, having thrown up terrific piles of broken, and in many instances ponderous, slabs of ice. Sad inroads had been made upon the floe which, however, much as it was reduced, was yet infinitely the largest compact body within the circle of the horizon. In many parts, where a temporary rent and separation had given freedom to masses confined underneath, huge calves, yellow and brown with age, darted up to the surface, looking like unsightly blotches on the pale features of the general scene. One small crack even trespassed on the ship: but what most astonished me was the state of the ice composing the entire body to the verge of the horizon. Formerly it had been remarked to consist of innumerable floes of different sizes, all more or less irregular, but chiefly crowned by peaked and massy hummocks, which, without any straining of the imagination, might, in some atmospheres, have been mistaken for islands. Of these, not one now remained. The whole had been crushed, ground, and powdered into an appearance, which I can liken only to the spiculated and splintery surface of broken granite, as seen through a powerful magnifier. How it was that this effect had been produced,

whether there had been no resistance, or that the particles had intermixed and consolidated, we could not determine; but the fact was indisputable, that none of the hideous ruins piled up on both extremities of our floe were distinguishable elsewhere. It is worthy of remark, as illustrating the fracture of chrystals, that the cracks in general pursued their course through every impediment of ice, large or small, in a track not unlike that sometimes marked by lightning on other substances. How far these continued, we had no means of ascertaining.

The clearness of the day enabled us to define the outline of the coast very satisfactorily. We had evidently been set a little into a bay, though the nearest land which seemed rather low and shelving, was at least twelve or fifteen miles away. From the deck, it seemed to trend southerly, until quite lost in the horizon; but with the assistance of a glass, as viewed from the crow's-nest, it formed a very deep bay, and again vanished behind a line of high blue land, clearly visible two points on the starboard bow. Beyond the latter, and stretching something more to the east, was the last point in sight, and which it was considered must be the western side of Seahorse Point, or at least very close to it. The ship's head (which it will be remembered was turned round by a commotion of the ice when not far

from Cape Bylot) was in an excellent direction, and allowing that the floe held together, and the wind continued from the westward, it was not unreasonable to suppose we should eventually be taken somewhere among the cluster of islands at the western extremity of Hudson's Straits.

At noon, soundings on a green muddy bottom were struck in eighty-six fathoms, and at the same time the extremes of land extended from N. W. $\frac{1}{4}$ N. to S. E. $\frac{1}{4}$ S. The latitude observed was 64° 19′ 30″ N. and the longitude 81° 40′ W.

February 17th, for some part of the day, might be said to be calm; and, as usual, the ice under what might have been thought favourable circumstances, began to work with a noise by no means welcome to our ears. The weather was beautifully fine, and the wind quite light, rather off the land; but though there was nothing in this respect which betokened a change, the barometer was slowly falling, and it was remarked that the grinding noise around the floe increased more than usual. From 1^h to 3^h A. M. of the following day (February 18th) the crashing of the ice at the eastern edge of the floe was alarmingly loud, and a few minutes afterwards I was awakened by a hoarse rushing sound, quickly followed by several severe shocks against the ship. The officer of the watch hurrying down, reported that the floe was certainly breaking up alongside, and I hastened on deck, where the first Lieutenant

had arrived before me. Here we saw a rent in the ice, extending from the stern of the ship to the edge of the floe, and another stretching from the bow directly ahead to the eastern brink; thus, in fact, forming a continuous line of separation directly through the centre. The hands were immediately turned up and set to work in bringing on board the armourer's forge from a shed alongside, and hoisting up the dingy,* which, for convenience and preservation had been stowed on the floe within our wall. The ship now began to complain, and strained considerably under the counter. She then heeled over to port, and relieved herself about six inches from the starboard embankment against the side, making by the effort gaping rents through the snow walls. At this time, the crashing, grinding, and rushing noise beneath, as well as at the borders of the floe, the rents and cracks in all directions towards the ship, herself suffering much, the freezing cold of 33°−, together with a W.N.W. wind, and the dimness of the early hour, combined to render our situation not a little perilous and uncomfortable. I had been alone to examine the edge of the outer ice, which though greatly disturbed and making a deafening noise, had not yet broken into our floe. But at 5^{h} A.M., a commotion like an earthquake took place; additional cracks displayed themselves

* A small boat.

across our snow houses, galleries, and court yard. The ship creaked in her beams and timbers; and to our great dismay, the increasing daylight shewed an advancing rampart of ice forming a semicircle to seaward, and already much nearer to us, from having rolled in one vast body full eighty yards. It extended from S. W. to N. E., and Lieutenant M'Murdo who made the report, estimated its height at thirty feet.* In all parts now, within the scope of the above bearings, enormous calves, some round and massy, others like small floes, had escaped from confinement, and tossed up into irregular positions looked like so many engines threatening destruction. But at this moment of most imminent peril there was a pause, and at near 7^h A. M. the whole tumult suddenly ceased. It will be remembered that as a screen from the severity of the climate, the decks had been covered with layers, and the sides protected by embankments of snow, now hardened almost into solidity. I gave orders that the whole of these should be cleared away, as well to lighten the ship as much as possible, as to get access to our supply of provisions, which were ranged along the bulwark, and this was the only step I could take towards our preservation, in the event of the ship being

* It afterwards sank to eighteen feet.

crushed. The ice all round was so splintered and jagged, that to put a boat upon it was out of the question. Neither could it be made, even for an hour, a deposit of provisions, full as it was of clear cracks and small holes, the production of each instant. Nothing therefore could have been conveyed to the land, distant at least seven or nine miles, and I think it at least doubtful whether any one, even without incumbrance, could have reached it.

The work of clearing the deck with pick-axe and shovel went on briskly; and at 3^h P. M. the ship rose up four inches, and towards evening, when the after-part was completed, eight inches more. The men under the inspection of the officers, had exerted themselves considerably, because, according to past experience, it was thought the disturbance would recommence about three o'clock. Nothing, however, beyond a partial motion was then perceptible, nor until $5^h\ 15^m$ P. M. when the ship was lifted up abaft. From that time, symptoms of the influence of some under-current were audible in the cabin, where the concussions of passing ice striking underneath were too clearly heard to be misunderstood. It ended in the separation of two edges of a large crack, not more than fifty yards from the ship, which opened in the space of five minutes into a hole of water. The extraordinary

part of this was, that the opening did not continue along the crack to the edge of the floe, but took place only in a particular spot, as if the ice had been scooped out from the interval so created. At 10^h P. M. it closed a little, and immediately a mound of ice was raised at the western termination, adjacent to the starboard quarter; this had probably eased the pressure from the ship, since little more was felt on board than a few squeezes and an occasional concussion. Meanwhile, the body of the ice outside the ramparts, which had been for some time at rest, began to be again disturbed. February 19th arrived, and we looked with some anxiety to the approach of the same hours, during which, on the preceding morning, we had suffered so much annoyance, fully expecting a repetition; but, fortunately the chief pressure fell on the newly-opened crack, extending however occasionally as far as the ship, and ending by heeling her over to starboard. In fact, when the sun rose, it was found she had forged about eight inches from the bank of the dock on the larboard side, where bay or young ice had closed up the interval. About 10^h A. M. another crack close ahead, or rather on the starboard bow, opened, and enlarged others near it, which in their turns produced fresh fractures, thus gradually separating the floe into its original constituent parts. In

this latter disunion, I could not but remark how quickly the young ice was formed on the exposed surface of water, on which the chrystals might actually be seen darting and glancing till they formed a continuous sheet. It happened that a solitary Dovekie had found in its wanderings the now circumscribed hole of water, which had been created the evening before, and gladly availed itself of this relief from its wearied flight, unconscious of the dangerous neighbours who observed it. Our keen sportsman, Mr. Gore, soon brought it triumphantly on board, where of course it underwent a careful scrutiny. Besides the two white spaces in the wings, the breast and under part were entirely white, as were the whole of the neck and back except three patches of a grey or speckled colour where the black and white plumage were intermixed. Though the maw was quite empty, the bird was tolerably plump. From the circumstance of its coming so far from land, it was inferred that there could not be much, if any, open water in that direction; yet in a couple of hours, three or four lanes became suddenly visible, in one of which, at the edge of the floe, the ice was drifting past us to the S. S. E.

Sunday had been kept on all occasions, when the duty allowed of it, as a day of entire rest; but the necessity of clearing away the ice and snow compelled for once a deviation from our

practice, and the work proceeded with unintermitted energy. Looking at the heaps thus removed, the broken arches of our galleries, and the rent walls, the cracks in the floe, and the vast mounds around it, one could not help being strongly reminded of the scene which must follow an earthquake. The ship's head had been turned by the late commotion about three points in shore; and judging from the land which was clearly seen, she had been set at the same time to the southward and eastward, rather towards an opening in the bay, the exact nature of which could not be ascertained. Evidently, however, it ran a long way to the south, as the low land on its western side was lost sight of; and as we could distinguish other points to the eastward, it was by no means impossible that it might be continuous with Evan's Inlet, thus making the land, the eastern extremity of which is Seahorse Point, an island. If this be so, the extraordinary rush of water experienced in the recent convulsion of our floe would be easily accounted for; still the soundings at noon had undergone no material change, continuing to give eighty-three fathoms, but with a substance containing particles of limestone instead of green mud. The latitude was 64° 17′ N. and longitude 81° 36′ W.; and the extremes of land were from S. 8° 50′ east to N.

32 W.; barometer 29. 53, and temperature of air 30°—. A parhelion was observed.

In a very short time the ice got into motion, and in a small lane on the starboard quarter appeared to be setting south. At 3^{h} P. M. the same lane closed, and another immediately opened at a short distance from it. At 4^{h}, the edge of the floe from west to north displayed signs of considerable pressure, which, affecting the ice alongside, drove it onwards with a rumbling noise so as to heel the ship over to starboard. The beam whale-boat being thus brought too near the ice, was hoisted half up the main rigging. The shed too, which had been so long familiar to our sight as the armourer's work-shop was now necessarily taken down and the spars, sails, ice-anchor, &c., brought on board. At 8^{h} P. M. a barrier was thrown up nine feet high on the starboard bow, and, owing to some under convulsion, the large pieces of the floe on that side were much cracked and broken; besides which, the chink astern leading to the edge of the floe in that direction became sufficiently wide to admit of the water being seen through it. There was only a light air of wind rather off-shore, so that these changes must have been occasioned principally by irregular tides. At 10^{h} 30^{m} P. M. several

singular openings suddenly appeared in sight, and were soon followed by another of those loud rushing noises, known by experience to be the forerunners of evil. The thermometer was 40°−, and the weather very cold.

February 20th. For three hours after midnight the ice opened and shut, especially on the starboard beam and quarter, where mounds and heaps were squeezed up alarmingly near the ship, but without in any manner disturbing her, beyond an occasional concussion and squeaking pressure under the counter. But at 4^{h} A. M., the whole of the ice was in motion, producing instantaneous fissures, and, among these, an actual separation of the ice along the starboard side, extending beyond the bow, and throwing down every thing in its way. Some of the galleries were now floating in the water, looking like tunnels. To find ourselves at freedom to move, would, two months later, have been the summit of our wishes; but now we saw it with reluctance, as it only mocked us with a hope which could not be realized, while it involved us in immediate peril. At 7^{h} A. M., the ice returning with accumulated force made the ship crack fore and aft with a hideous creaking that for some seconds held us in suspense for the result. My cabin door could with difficulty be forced open, and was split with the pressure. The people, in

alarm, crowded on deck; and even the poor sick came tottering aft, in an agony of terror. Providentially the ship lifted herself up fully eight inches, under the pressure of a force that would have crushed a less strengthened vessel to atoms; and thus the opposing ice either passed in part beneath the bottom, or was wedged against the large masses at either extremity.

After 8^{h} A. M. we had some quiet; and at divisions, I thought it necessary to address the crew, reminding them that as Christians and British seamen, they were called upon to conduct themselves with coolness and fortitude; and that independently of the obligations imposed by the Articles of War, every one ought to be influenced by the still higher motive of a conscientious desire to perform his duty. I gave them to understand, that I expected from one and all, in the event of any disaster, an implicit obedience to and an energetic execution of every order they might receive from the officers, as well as kind and compassionate help to the sick. On their observance of these injunctions, I warned them, our ultimate safety might depend. Some fresh articles of warm clothing were then dealt out to them; and as the moment of destruction was uncertain, I desired that the small bags in which those things were contained should be placed on deck with the provisions, so as to be ready at

an instant. The forenoon was spent in getting up bales of blankets, bear-skins, provision, pyroligneous acid for fuel, and in short whatever might be necessary if the ship should be suddenly broken up, and spars were rigged over the quarters to hoist them out. Meanwhile the ice moved but little, though the hour of full moon was passed; but at noon it began to drift slowly to the northward. We were now from five to eight miles off the nearest land. The soundings were in eighty-eight fathoms, and showed black mud, which had not been seen before. The latitude was 64° 16′ N., and we had gone a little to the eastward. Thermometer 21° –, and cold, owing to spiculæ falling. Barometer stationary at 29·55. Wind west.

Though I had seen vast bodies of ice from Spitzbergen to 150° west longitude, under various aspects, some beautiful, and all more or less awe-inspiring, I had never witnessed, nor even imagined, any thing so fearfully magnificent, as the moving towers and ramparts that now frowned on every side Had the still extensive pieces of which the floe was formed been split and divided like those further off, the effect would have been far less injurious to the ship; but, though cracked and rent, the parts, from some inexplicable cause, closed again for a time, and drove with accelerated and almost irresistible force against the defenceless vessel.

In the afternoon the other boats were hoisted higher up, to save them from damage in the event of the ship being thrown much over on her broadside. For three hours we remained unmolested, though the ice outside of the floe was moving in various directions, some pieces almost whirling round, and of course, in the effort, disturbing others. At 5^h P. M., however, the piece near the ship having previously opened enough to allow of her resuming a nearly upright position, collapsed again with a force that made every plank complain; and further pressure being added at six o'clock, an ominous cracking was heard, that only ceased on her being lifted bodily up eighteen inches. The same unwelcome visitation was repeated an hour afterwards, in consequence of the closing of a narrow lane directly astern. The night was very fine, but the vapour which arose from the many cracks, as well as the small open space alongside, quickly becoming converted into small spiculæ of snow, rendered the cold intolerably keen to those who faced the wind. Up to midnight we were not much annoyed, and for four hours afterwards, on February 21st, all was quiet. Every man had gone to rest with his clothes on, and was agreeably surprised at being so long undisturbed by the usual admonitory grinding. However, at 4^h 10^m A. M. a commotion was heard, which appeared to be confined to the angle con-

tained between west and north-west. On looking round at day-break, it was found that the ship had been released by the retreating of the ice, and had nearly righted; but at 5^h A. M. she was again sorely squeezed, and the nip being repeated at 7^h A. M., she rose eighteen inches as before; she was then at intervals jerked up from the pressure underneath, with a groan each time from the woodwork. Yet notwithstanding these successive attacks, very little additional water found its way into the well, which was sounded every five minutes, and had not yet exceeded seven inches in the twenty-four hours. On inspecting the beams and decks—a precaution that followed every nip—the former were found firm, and the bolts still tight; but the latter, for about twelve feet abreast of the store-rooms on the lower deck, had risen three quarters of an inch, while the binding planks on the larboard side abeam had also started a little. In order, therefore, to give additional support, it was proposed to put up quarter shores along the lower deck, and store-rooms, and the proposition was immediately carried into effect. At 10^h the ice eased off, and some on the outside appeared as if setting to the S.E., which was in shore of us. The weather was fine, but for the reason already assigned, extremely cold in the shade, or facing the northerly wind in the neighbourhood of

frost smoke. I felt it keenly in making the round of the now much rent floe, and in looking with fresh wonder on the gigantic piles before alluded to. Of the awful grandeur of these no language could give an adequate description, and even the more effective pencil has been able only to catch one momentary aspect of a scene, the terrible sublimity of which lay chiefly in the rolling onward of these mighty engines of destruction. Cracks, rents, and banks extended from the edge or base of the barrier towards the ship, in every bearing on the north-east side, where the ice was much the heaviest, and, consequently, unless it should be splintered into smaller masses, most to be dreaded in the encounter. Around the other part of the floe the havoc was, if possible, still greater, reaching, by four or five transverse fractures, even to the starboard side of the ship, while ahead and astern longitudinal mounds of ice and snow began to assume the appearance of barricades.

Whilst engaged with the first Lieutenant in contemplating these effects, within ten paces of the vessel, the sound of rushing water beneath warned us to expect some change. All at once, however, it ceased: another rush was heard, which stopped as suddenly; but a third, advancing with a louder roar, threw the whole body into motion, and bringing the ponderous

acres with all their loads against the ship, threw her up and considerably over to starboard, with great violence, though, strange to say, without apparent injury. It was then we saw her rise to the pressure, and endeavour to thrust the ice beneath her bends, a result much to be desired, as it would form a sort of bolster to support her. We had certainly gone somewhat to the eastward, since a point named, after the third Lieutenant, M'Murdo, the bearing of which yesterday was before, was now abaft the beam, and the high bluff land was more clearly visible, though in some measure dimmed by frost smoke. There was no interruption from this time until $3^h\ 30^m$ P. M., when the ice suddenly pressed up against the ship. It was not however till 6^h that it came with much force, when the decks, especially the upper one, creaked fearfully in the afterpart, notwithstanding the four newly erected shores in my cabin. As usual, after some resistance, she rose and heeled over to starboard. The two following hours kept us in a state of painful suspense, for the ice closing in different points occasioned violent pressure, that threw her over twenty inches, and raised her nearly as much. This was accompanied by one of those loud rushing noises beneath, so frequently mentioned before. Judging from the previous evening, we might now have expected a few hours of

tranquillity; but when every other part was undisturbed, the extensive piece on the larboard side moved slowly to the south, and again nipped us. At 11^{h} this slackened, and thenceforth we were quiet until 5^{h} A. M. of February 22d, during which interval I conceive the tide and current were setting to the south and east.

From 5^{h} until 8^{h} A. M. the commotion again went on, and caused several new, and enlarged many old cracks, the detached pieces taking different directions, though still close together, and, consequently, grinding or overlapping whatever obstructed them. The pressure came suddenly and without warning on the ship, and strained her fore and aft, more especially, however, about the orlop deck, where, on examination, the carpenter discovered that some of the iron fastenings in the store-rooms had received injury. There had been, indeed, an immense pressure on the starboard bow, as may be conjectured from the fact that a huge mass had been thrown up fully nineteen feet above the level. The remnant of the wall across the bow had been thrown down, and the ice there so broken as to present a most ruinous and desolate appearance. The whole scene indeed, far as the eye could stretch, was confusion worse confounded. Broken points at every angle, from the perpendicular to the nearly horizontal, hum-

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POSITION OF H.M.S. TERROR ON THE 22nd FEBY 1837.

Frost smoke in the distance.

London. J. Murray. Albemarle St.

mocks, mounds, jagged and warted masses, splinters, walls, and ramparts, with here and there, at far intervals, the remains of some floe not yet entirely broken up;—such was the picture which saluted us on every side, teaching the lesson of humility and resignation to the will of Heaven. Much ice was forced underneath the bottom on the starboard side, and often bounded up with severe concussions along the run abaft, making the ship tremble at each successive shock. The angle of inclination on that side was nine degrees.

Up to noon scarcely any alteration took place, the vessel remaining heavily nipped. It had been remarked during the last eight or ten days, that from the early part of the day until a few hours past noon, we had been regularly set to the west; but now, the ship's head had not only been turned more out, and consequently in a better direction for going along the coast, but we were drifted by the ice to the north west until $3^h\ 30^m$ P. M. when we seemed to be stationary. Among the numerous cracks around, were several astern, that after a temporary separation generally closed again; but an entirely new one now opened, from fifteen to twenty feet wide, within the short distance of thirty paces from the quarter: not far from this, and completely isolating the high hummock which under the name of Mount

Pleasant, had for the whole winter, served as a look-out station, was another lane ; and this again was bisected by a third, that cut in two the snow hut first made, the two parts of which were, on a shifting of the lane, carried different ways. A larger and more distant hut was already partly crushed, and only awaited the advancing roll of the rampart, now within a few feet of it, for its final downfal. Between the hours of 6^h and 8^h P. M. the rushing 'bore,'* was faintly audible to the westward, and after various checks seemed to resume its course with increased violence, setting in motion whatever impeded its progress. The lanes adjacent were all closed, and began grinding down their edges, which were speedily thrown up into bordering mounds. The cracked ice on either side was also agitated, and saved us considerably by affording a channel for the bore. Our anxiety indeed was not of long duration, for the ice immediately adjoining the stern was more pounded and the ship less affected than on any of the recent assaults. The sky was clear overhead, and almost calm, and midnight came without any more disturbance than an occasional rustling at the extreme barriers. This tranquillity remained until about 6^h A. M. of the 23d, when a remote sound indicated another commo-

* The bore is a sort of rampart or wall of water, thrown up by the opposition of the current and the set of the tide.

tion; but this effect was neither serious nor lasting, and up to noon there was no annoyance. The ship, however, had still the same inclination, about three feet four inches to starboard, and consequently remained nipped; and the bread room having been cleared for an examination abaft, a knee-chock on the larboard side was found wrenched $\frac{5}{8}$ of an inch from its position on the after part, above which the deck was raised $\frac{3}{8}$ of an inch. Three shores were fixed on each side of the bread room, as an additional support. The weather was calm, and to a certain height misty, from the great increase of minute frozen particles. The difference between the two thermometers on board, (those on the ice having necessarily been taken down,) was at a little past noon 27°; the one being 19°−, and the other 8°+. The high land was still in sight, and evidently nearer; the extremes being from S. to W. N. W. The latitude was 64° 14′ 50″ N. The ice continued setting to the N. W. until 4^h P. M., then remained stationary until 6^h, after which there was disturbance at intervals, in the direction of the north east, but without any material effect, except that a short cracking sound indicated extra pressure on the ship.

The 24th was comparatively tranquil, and at noon the ship remained with precisely the same inclination. Still, as the wind was now directly on

shore, there was no saying at what moment a nip might come on; and as the upper deck had been more affected than any of the others, the first Lieutenant suggested a method of lashing its beams to the stronger ones of the lower deck, to prevent them from rising up, as they had always a tendency to do, when under the influence of heavy pressure amidships, or on the topsides. The people were forthwith set to work in canting the barge and clearing the booms for that purpose. The wind had set us towards the land abeam; and that ahead bore S. 3° E., distant about eight or ten miles. After inspection to-day, Doctor Donovan made a favourable report of the health of the crew, which he considered to be manifestly improving. One only was added to the list, whilst many of those who had been affected were so far recovered, as to stand in no further need of an extra quantity of acid. Until 5^h P.M. the ice was generally in motion, and setting fast to the westward; at that hour the motion ceased, and was succeeded by a noise to the northward, occasioned, as was supposed, by the freshening breeze breaking up the ice in that quarter. Soon after the cracking of the pitch and timber about the stern frame gave notice of fresh annoyance; and, though nothing could be detected by the officer of the watch denoting any action on the surface, the cracking became more vehe-

ment, accompanied with a splitting of part of the lining. It was evident, therefore, that there was considerable pressure existing about the larboard quarter; and, a few minutes before 8^{h} P. M., the cause announced itself by a succession of loud rushing noises, followed by the rending of the ice near us, and the squeezing of the ship. For two hours more there was incessant motion of one kind or other, bearing the ice hard against the larboard side, particularly the quarter, and at midnight the ship was straining much.

February 25th. During a brief interval we were relieved from anxiety by a general stillness, but the same unwelcome sounds soon returned; the vast bodies pressed more closely together, producing complaints from the larboard quarter. When the sun rose the ship was carefully examined, but notwithstanding all the sound and fury heard in the night, no marks of external violence were discovered. Early in the forenoon the ship began to set towards the S.S.E. As the low land abreast could now be distinctly made out, it seemed that we must have neared it; the blue bluff ahead bearing due south was dim from the quantity of small snow which was flying about, causing a penetrating cold that all complained of. The wind kept to the north with a moderate force, and the temperature was 33°−; but the southern thermometer being

sometimes shaded by the rigging, and having no other place so free from radiation to put it, the register was not to be depended on. Barometer, 29. 94. Latitude, 64° 14′ 20″ N., and longitude, 81° 27′ 15″ W.

During the entire part of the afternoon the ice appeared to set in a northerly direction, though at 5^h P. M. the high land was far more distinct than I had hitherto seen it, many breaks and inequalities being observed which were not previously visible. For a couple of hours there were irregular movements near us, and between $7^h\ 30^m$ and 8^h the usual rushing sounds were heard in the north-west quarter. The cracking ice marked the course of the disturbing force whatever it was, which, though frequently deviating and interrupted for a few seconds, again broke onward with increased violence, bearing down all opposition. Such were the severe attacks the ship had continually to withstand, and that too, at the weakest point. She cracked much around the quarter, and was otherwise heavily pressed.

February 26th. During several hours, the ice, though to all appearance close jammed together, was often in motion, and came with such sudden shocks, that few were able to sleep. Many, indeed, lay down in their clothes, ready to start up at a moment. Our devotions this

day were tinged with a solemnity becoming the precariousness of our condition; and a sermon, upon the appropriate text "It is the Lord: let Him do what seemeth Him good," was listened to with the most profound and serious attention. At noon the high land was much nearer, and we had now opened the deep bay, inlet, or strait, mentioned before. The land there was very low, not unlike the description of the coast to the south of Evan's Inlet. The bluff, which had been denominated the blue bluff, from the tinge always seen on it, could now be made out perfectly clear, and was not more than ten miles off, and the distance of the nearest low land did not exceed four miles. Soundings were found in seventy-two fathoms, having a bottom of rock and sand.

Some of the gentlemen thought they saw the track of a fox, which, if so, must have taken more than common trouble to make so long a journey, and would find itself but poorly requited after all. As usual, in the afternoon, the ice eased off a little astern, and, after afew concussions underneath, began to set in a body to the north-west. While this was in progress, there was an evident disposition in the broken masses of ice, under the stern, to rise up; and as they would undoubtedly have staved in the cabin windows, if nothing worse, some thick planking was nailed across them, which, with the dead

lights, was considered to be strong enough to resist any ordinary force. There was no movement of any consequence until between 9^h and 11^h, when after many and various sounds, the entire body around to the Northward began to be agitated. The motion would suddenly cease, and then as suddenly recommence; sometimes far off, more frequently near the ship; squeezing up ridges of ice, and causing a most distressing creaking and splitting of the lining along the larboard side. The aurora showed itself in the south-west in the form of an arch, from which beams darted up to the zenith.

February 27th. The time of the lowest neaps having arrived, we naturally expected a few days' respite, at least for the night, a boon which would have been most joyfully accepted; for, the quantity of clothing which the cutting cold rendered necessary required so much time to put on, that few lately had ventured to disburthen themselves of the whole, when seeking to snatch a few hours of rest. It was not, however, our fortune to be so indulged; for about 1^h A. M. the commotion and turmoil recommenced, and soon forced the ship, embedded as she was, about two feet astern. The creaking and crashing of the ice in that short space was horrible, nor did it entirely desist, until again closing it held us in a still tighter grasp than before. After a pause of four

hours, by opening out a few inches alongside, it allowed the ship to come more upright, still, however, with a considerable inclination. Some narrow lanes of water appeared nearer the ice, which was at present immovably fixed to the low land, forming the western entrance to the deep bay or inlet, and along the edge of which we seemed to be setting to and fro. The frost smoke from these lanes in some measure obscured the land which however we seemed to have approached; thus making it apparent that the flood tide came from the north-west, and without any aid from wind (of which for two days there had been very little), continued to drive us bodily along towards Hudson's Straits. Up to 11^h A. M. the seaward ice which encircled us passed rapidly to the south-east, along the outer edge of that wedged against the land at the entrance of the opening: at that hour it stopped, and in the concussion produced by the reaction, several pieces ground along and underneath the bottom of the ship, but without producing any corresponding action on the surface. At noon all was once more silent. The crew, for employment, were ordered to make each a small sledge of the staves of casks, and to sling the tin cases of pemmican. Our invalids were generally better, except two on the sick list, who, probably from despondency, did not improve as rapidly as their companions.

About $1^h\ 40^m$ P. M. the retrograde action commenced, and after compressing the masses nearer together, a temporary obstacle within twenty paces from the starboard quarter squeezed up a small ridge twelve feet high. We kept driving to the north-west until 6^h P. M., from which time until midnight we enjoyed almost uninterrupted quiet.

February 28th. The Aurora appeared in the form of an arch in the south-east quarter, and, as before, sent up beams towards the zenith, but without colour. At $1^h\ 40^m$ A. M. the reaction took place, and once or twice pressed us closely, though soon after the ice began to be more disengaged, and that near the edge of the fixed shore ice appeared to be going to the westward. Between 4^h and 8^h A. M. there was some grinding, but the cracks and openings grew wider, and the ship gradually righted. The seaward body again set to the S.E.; but a large and remarkable hummock, stationary among the land ice abreast of us, showed us that our progress had not been much, as the same mark had been observed under a similar bearing about an hour earlier the day before. Two or three narrow lanes close to the vessel, and a continuous one along the outer edge of the land ice, extending as far as the farthest point of coast, gave me reason to hope that the ice ahead was slowly finding an outlet by the strait, which, with a

westerly wind, there seemed every probability of our soon reaching. In fact, had it not been for the uncertainty respecting our being nipped, and the apprehension that the whole frame-work would, by constant repetition, get daily weaker, nothing could be more desirable, or, as far as I could judge, more favourable for my intention of trying the passage by Sir Thomas Roe's Welcome, than our gradual approach towards Sea-horse Point. How far the ship might be battered by floating ice, and cross tides or currents, when within the influence of Fox's Channel, the Strait, and Hudson's Bay, not to mention the races and strong sets of the Welcome, was a consideration which I did not choose to dwell upon; satisfied that if we once got into open water, the difficulties generally encountered on such occasions would assuredly be overcome.

The ice within us was considerably more rent by every fresh pressure, though that on the north-east side, which sometimes served as a bulwark of defence, and at others as an engine of attack, remained, together with an adjoining part of our old floe, the most imposing piece around. There was one fact, however, as evident as it was new and satisfactory, namely, that the aspect of the ice originally forming our floe,—the very solid properties of which we had so disagreeably tested in our serious nip of last September,—was

now completely changed. The identical pieces, with the marks of the ship's side, were still within a few paces of us; and some of them were fractured sufficiently, to show that a very great reduction in thickness had taken place upon the under surface. In every direction where huge masses were upturned, or ridges and barriers thrown up, it was observed by the ice mate, and those who had had most experience in the Greenland seas, that there was comparatively little solid ice, and that mostly of this winter's formation. It was slabs of frozen snow adhering to and covering most of these masses, which gave them the formidable appearance they assumed. It may, therefore, be inferred that the rushing of currents and tides, the sounds of which were distinctly heard underneath our floe, even when to the westward of Cape Comfort, had the beneficial effect of grinding down or wearing away the irregular under-surfaces of the ice, as they chafed against any obstructions to their course. This, if, as seems probable, a correct explanation, will, in connexion with other ascertained facts to some of which I have before adverted, aid in accounting for the occasional disappearance of ice, and consequent facility of navigating these seas during particular seasons.

The crew were kept employed, and one of them had a narrow escape from drowning, from

having incautiously, whilst crossing a narrow opening, stepped on some slabs of snow, which broke under him: he fell into the water, and in a few moments would have been gone for ever, had not Mr. Vaughan, the boatswain, seen him, and run immediately to his succour. Before noon the ship was free from pressure, but the ice checked by the tide, drove her back again towards the N. W. We were evidently farther off shore than before, though still nearing two remarkable round hills, having each a small dome-shaped mound rising from the termination of the slope, and forming the summit. To the north and west, and seemingly connected with them, was the blue bluff, now on our starboard bow; farther south was another point, the extremes of which and the land astern were S. E. and N. W. by W. The weather was fine and calm, and some icicles formed on the ship's side. At $1^h\ 20^m$ P. M., a mercurial thermometer, hung against the sunny side of the ship, rose to $11°\,5+$; the spirit one on board in the sun being $15°-$, and the one in the shade $21°-$. In the latter part of the day the ice set slowly to the N. W., but about 8^h P. M. stopped, and closed a little on the starboard side of the ship.

This was the lowest neap tide; and as the weather was calm, we looked forward to the comfort of a quiet night. In this however we were disappointed.

From 10^{h} P. M. there was no peace, but on the contrary, harsh rubbing, smart explosions, and other varieties of discordant sounds, quite sufficient to keep the mind on the alert. As daylight gleamed, several narrow lanes of water were perceived running from the quarter, inshore, directly ahead of the ship, and precisely in the same crack, which we hoped to have got through last year, when the ship's head was the other way. Under any circumstances they were not wide enough to afford us a passage; and a few minutes were sufficient to coat them with young ice, which of itself barred all progress. So long, however, as they remained open, they aided the work of destruction, by allowing space for the large bodies to grind against each other; but the ship was what is termed *free* in her dock; that is to say, she was from two to three feet away from the walled sides of ice and snow which usually hemmed her in, the clear interval below being frozen hard with young ice. Whether from the current of air thereby permitted to circulate round the bends, or from the removal of the snow covering and embankment, or both, the water in the pump-well was found for the first time frozen. Its temperature was 30°+, and that of the lower deck 58°+. The land was clearly seen from the deck, running out to a point in the extreme distance, bearing

S.E. $\frac{1}{2}$ S., but during the last twenty-four hours we had not gone much if at all towards it. At noon there was a moderate breeze from the north, which increased so as to predict a gale, a result least of all to be desired from that point of the compass, as it would have infallibly brought down an immense pressure upon the leeward ice packed against Southampton Island. Happily it declined with the setting sun, and subsequently fell quite calm. In the afternoon there was a beautiful parhelion, with an outer circle and one mock sun. The subtended angle of the latter was 45°. It is to be observed, that for some time past we had regularly been set backwards and forwards, along shore, with the flood and ebb, generally gaining upon the whole some trifling advantage with the former, as proved by our gradual approach to the land ahead. To-day, however, owing, as was supposed, to the opposing wind, there was no retrograde motion to the westward at all; and it was reasonable, therefore, to calculate at the turn of tide on some acquisition of distance. Nevertheless the hour passed without the slightest alteration; but, at 10^h P. M., several sudden jerks in the cabin warned me that something was going on; and, accordingly, near an hour after, a general rumbling was audible to seaward and astern. After some alternations of commotion and pauses, and when

all was still and apparently ended, suddenly the vast bodies in contact with, and immediately surrounding the ship, were in fearful agitation, rising up in grinding conflict, piece thrown over piece until the ponderous walls tumbled over, and the whole accompanied with a screeching and howling and whining which was absolutely hideous : such was the violence of the pressure that the ship was lifted up abaft, and both hull and rigging trembled violently. Another pause ensued ; the stars shone brightly ; a faint gleam of aurora was playing near the zenith, and so beautiful and hushed was every thing, that nature seemed, as it were, in a trance. But scarcely had the idea flitted across the mind, when the war burst out again with more fury than ever, and huge fragments and masses seemed to be rolling down upon us with an impetuosity that threatened immediate destruction. Repose was impossible : many started from their beds, preferring, though they could do nothing, rather to see than merely hear the danger. The current rushed irresistibly to the stern ; and, taking the hull fore and aft, forced a complete stream of broken ice under the bottom, lifting the after part still higher up than before. While the first Lieutenant was below with the carpenter and his crew, anxiously observing the beams and decks as the heavy strain came upon them, to see which

most complained, and to be ready in the event of injury if possible to repair it; I was standing on the tafrail, watching the approach of a solid mass, part of our late floe, which was forcing another huge mass, like an advancing wave, over a hard piece, already noticed as having oppressed our starboard quarter last year. At length, the ship became so completely hampered by ice underneath, that the remainder of the floe, on either side, moved about eight or ten feet ahead, leaving the ship fixed in the midst, and wedged up in every direction. This was another novelty to our Greenlandmen, who, in the strange and unaccountable phenomena which now presented themselves, grew daily more puzzled.

At 2^{h} A. M., March 2d, the hubbub ceased, and we slept until morning without further interruption. As daylight broke, the havoc was more clearly seen, and a wild scene of confusion it was. About a mile ahead the frost smoke betrayed an opening that led along the land-packed ice to abeam of the ship; and this, with a few other lanes, was the only difference in that respect which was observable. The land was much raised by refraction, and we seemed to have neared it a little. I say seemed, for, in consequence of a gentle undulatory motion of the ice close to the ship, which, though imperceptible to the eye, was proved by the mercury

in the artificial horizon, the observations could not always be relied upon as exact. The sun was acquiring power daily; for, at $10^h\ 30^m$ A. M. we saw the vapour rising from the southern aspect of a snow wall, and at $11^h\ 30^m$ A. M. a mercurial thermometer with a blackened bulb, placed against an empty coal bag, rose to $28°+$, while that on board (spirit and clear bulb) was $19°-$, and the one in the shade $27°-$. The sky was free from clouds, a light air prevailed from the S.W.; and, whether from the wind being off shore, or some other local cause, we were free throughout the day from annoyance of any kind, except a distant sound, as of a rushing towards the south.

March 3d. The same sounds continued, and at $2^h\ 30^m$ A. M. reached the ship, but without producing any thing more serious than rubbing and sliding loose pieces of ice against the sides. This soon subsided, and again we remained perfectly quiet up to noon, when the mist which had hitherto concealed the land cleared away, and the bearings placed us a little to the eastward of our position of yesterday. At 1^h P. M. the wind still slanting off the land, a lane of water was observed to open about half a mile distant from the ship. It was fully a quarter of a mile broad, and extended a long way towards the point. From this fact, there was reason to

suppose that, however close and packed the ice might be in our vicinity, there either could not be such a continuous body to the northward as we conjectured, or, that it must be interrupted by lanes and other openings sufficiently extensive to allow of its being put into motion even by a light wind. Towards evening the ice closed a little, but until 6h A. M., March 4th, remained perfectly quiet, and thus allowed us the enjoyment of a sound sleep. Neither at that hour was there any thing more than a slight rushing ahead, occasioned probably by the change of tide, as the ship began immediately to drift to the N.W., and so continued to do until noon. The approach of the new moon kept us alive to every symptom of change in the weather; and when the wind drew more round to north, causing a trifling movement among the ice in that quarter, apprehensions began to be entertained that a breeze would come from the same point. Meantime the ship drifted backward and forward with the tide, without encountering any annoyance. We had now thirty-six small sledges made, which completed our arrangements for whatever might happen.

After a passing alarm in the early morning, the 5th of March went quietly over until 6h P. M., when a noise was heard in the north-east direction. The breeze also had freshened, and often came in

squalls. A little past 8^{h} the disturbance reached the ship, bringing down the heavy bodies to windward with a fearful pressure, ploughing up the small quantity of young ice alongside, and lifting other large fragments up to the chains, from the starboard quarter to the bow. During two hours and a half our situation was exceedingly precarious, and it seemed every moment as if the ship were making her last struggle. For a few minutes she was forced up by the ice fifteen feet forwards, and then thrust resistlessly astern. Hardly was this over when the large pieces on the starboard side moved slowly forward, and the still more ponderous ones to windward closed at right angles, thus subjecting her to the severest trial. All this time the bottom was continually thumped and hammered by the huge calves struggling to get free, each blow shaking the whole frame so violently as to be sensibly felt on deck; and, not knowing what the effect might be, the hands were turned up and the sick dressed, to be ready for the worst. The thermometer at the time was 25°—, and the weather decidedly cold.

By midnight there was a pause, and at 1^{h} A.M. March 6th, a relaxation on the starboard side, where two cracks had separated sufficiently to show the water. The submerged masses, now

more at liberty, sought release from their imprisonment; and finally, the ship freed by these various secessions, righted. Still however the disturbance continued, and at 3^h A. M. the ice again closed with the same almost intolerable pressure. When daylight broke, the land was discovered bearing from S. E. by E. to N. W. $\frac{1}{2}$ W., and apparently we had gone somewhat to the eastward. From what had occurred in the last twelve hours a more than ordinary change was expected, nor in vain; for besides several fresh barriers, masses of many tons' weight were seen riding on the top of mounds which even before had been considered very high. But the most striking effect had been produced along the walled side of the shore ice, where, for several miles, actual hills fifty feet high had been thrown up. We were also nearer than before, but hoped that the several considerable pieces which yet interposed, would, for some time, perhaps entirely, prevent our being driven on the land. At $9^h\ 30^m$ A. M. as the tide turned, we of course suffered, but not materially as compared with what had just passed, and up to noon all was tolerably quiet. The wind was still north, the barometer 30. 37, thermometer at 21°—, difference in the sun 14°. Latitude 64° 12′ N. and longitude 81° 16′ W. At $1^h\ 45^m$ P. M. the ice ceased its drift to the N. W., and after some cracking alongside,

at 2^h P. M. it set at the rate of between two and three miles an hour to the S. E. The barometer indicated a further rise, and therefore fine weather; but though clear overhead it grew misty about the horizon as the sun went down; and the breeze freshening in squalls brought a proportionate pressure from the entire body to windward, which caused much straining and cracking on the larboard side and quarter. The ice too alongside and near became agitated, occasioning considerable annoyance. On this day of the new moon, indeed, such effects were to be expected, but our fear was that, having commenced earlier than was expected, they betokened something more serious afterwards. Our anxiety (for there is no becoming indifferent to this kind of trial) lasted till 8^h P. M., during which interval we had drifted closer to the fearful looking wall of what was called the shore ice. About 9^h P. M. the ship suffered many shocks and hard rubbings from a fresh disturbance, and we should doubtless have been kept in a state of restlessness all night, had not a separation taken place in a crack about fifty paces from the ship, which allowed a lateral escape to the pressure of the opposing parts.

On the following day, March 7th, we were unusually quiet until 5^h A.M., when another commotion began, and again made the poor ship crack and tremble violently. This was accompanied by a

grinding and heavy thumping abaft under the larboard counter, where I understood from the officer of the watch, a very compact gallery, built on a solid mass, was forcing itself underneath and lifting the ship over. Going on deck, I found she had risen two or three feet, and was certainly suffering under severe pressure. Meantime she was carried by the ice rapidly to the S. E. We had the land more broad on the bow, and could clearly distinguish the farthest point ahead from the deck; but we were not, as I thought, nearer the wall, which however was very distinct, and perpendicular as well as high. Hitherto it had been supposed to be attached to the land; but Mr. Green, the ice mate, now detected the movement of an inner body, by accidentally seeing two hummocks cross each other, the outer one steady, the inner one moving. It was evident, therefore, that we were at the edge of the strongest set of the current and tides, and, could we have been divested of other anxieties, were perhaps in the very best situation for getting early into open water. After a tranquil day, the ship setting backward and forward with the tide as before, at $5^h\ 50^m$ P. M. she was thrown up three inches higher than before. This was the beginning of a series of strange and unaccountable convulsions, which to any less fortified ship would assuredly have proved fatal. The northerly and N. N. E.

fresh breezes which had brought the ice down for more than three hundred and sixty miles, had fallen calm, and given way to a more westerly and very light air; an interval too of more than twelve hours had elapsed to check the impetus so given, and it was, therefore, reasonable to conclude that no impediment would occur to a peaceable progress. In this, however, we were cruelly deceived. From 6h P. M. ominous rushing sounds were heard far off to the north east and north west. These gradually drew nearer, as the flood made its way either under the compact bodies that withstood the shock, or along the cracks and openings—gaining in these latter a furious velocity, to which every thing seemed to yield. It happened that there were several of these around the ship; and, when they opened on us like so many conduits pouring their contents to a common centre, the concussion was absolutely appalling, rending the lining and bulkheads in every part, loosening some shores or stanchions, so that the slightest effort would have thrown them down, and compressing others with such force as to make the turpentine ooze out of their extremities. One fir plank placed horizontally between the beams and the shores, actually glittered with globules. At the same time the pressure was going on from the larboard side, where the three heaviest parts of the ruin

of the floe remained, cracked here and there, but yet adhering in firm and solid bodies. These of course were irresistible; and after much groaning, splitting, and cracking, accompanied by sounds like the explosion of cannon, the ship rose fore and aft, and heeled over about 10° to starboard. On sounding the well there appeared a trifling increase of water, amounting in the day to $2\frac{1}{2}$ inches, a proof that she was loosened. Below indeed, during the pressure, a part of the bulkhead of the steward's room had fallen out into the after cockpit; while three of the lower deck beams eighteen inches square, abreast of the larboard fore chains, had been lifted half an inch from the shelf-piece: the bolts that fastened them were drawn a quarter of an inch, and several treenails also were much loosened. Even when the weather became calm the agitation of the ice did not subside, but continued up to midnight, assailing the ship with almost unremitted violence.

Nor on the following day, 8th March, was there much abatement; and at 7^h A.M. the ice closed, and again straining the ship, raised her several inches higher, making in the whole four feet three inches. A light air was now blowing from the S. W. which was nearly off shore, but wedged as the vessel now was we could scarcely expect to escape all annoyance. In fact, not a hole of water was visible from the mast-head; and, with

the ice so jammed in every part, it must have required an astonishing impetus in the first instance to make the effects felt so far. Nothing indeed but a current from the north co-operating with the tide, could in my opinion possibly have brought about such a result. We had decidedly gone more towards the outer point, which, even when thrown up by refraction as all the land was, appeared too low to answer the description of high coast given by Captain Lyon as forming the Seahorse Point of Button. The land formerly called the blue bluff was now nearly abeam, and appeared, as well as the snow permitted me to judge, to be composed of rocks, in some of which were gullies. It seemed the eastern entrance to the Inlet, Strait, or Bay frequently alluded to before; and receding from it further south and east, the land bending in a semi-lunar form terminated in two bold and tolerably high hills, which are perhaps the most remarkable along the whole coast as far as Cape Bylot. Their dome-like summits assumed a more angular outline as we altered the bearings, and the coast had some bays and cliffs. A novelty presented itself in the shape of a flight of birds, supposed to have been dovekies, which were seen flying from the land towards the north, most likely in search of open water. At noon the black thermometer was 35°+, the plain one

7°+, and the one in shade 14°−. At 1ʰ P. M. the blackened thermometer was as high as 41°+. The day passed quietly over, and at last, for the first time for many nights, I enjoyed the comfort of unloading myself from a stack of clothes.

At noon of the 9th a visible progress had been made along the land, the south extreme of a high bluff bearing S. 38° W. The afternoon was rather fine; and though there was no perceptible motion on the surface, yet the two large pieces of ice opened apart almost athwart the stern, and within only a few paces from it. This was done quietly, and directly against the force of the wind; but when the ship began to set to the S.E., as she did at a little past 4ʰ P. M., they closed again, occasioning a strain upon the larboard quarter. From that time the breeze freshened rapidly from the N.E., a point from which it was least desired, as it brought the whole force of the windward ice against the broadside. At 7ʰ 30ᵐ P.M. there was a strong gale, and squalls in quick succession, driving the low scud over the young moon with great velocity. The natural accompaniments were not remote, and soon announced in grating sounds their impetuous and destructive march. I beheld two enormous masses, one of which had hitherto resisted every attack to thrust it from its place, hurled onward across the stern,

in a line for the shore ice, which there seemed little prospect with such a gale of long avoiding. The ship cracked and shook violently, and no longer able to offer direct resistance rose several inches. It was a boisterous and restless night, passed in wearisome listening to the incessant crashing, which, for aught known to the contrary, indicated the final dissolution of our hope and stronghold, the floe. The hubbub at length reached its climax. A hollow grinding, as from the onward motion of some vast body, came louder and louder on the ear, and, speed and sound increasing as it approached, finally burst with deafening fury on the ship, causing such fearful cracks and ominous tremblings, that all waited the result in painful suspense. A little more and she must go! What of human construction could withstand the violence of such an onset! Still she continued to rise as the pressure increased. In an instant it ceased, and all was still as death.

After midnight, March 10th, the wind veered more to the north, blowing heavily in squalls; and, in the north-west circle of the heavens, a beautiful meteor was seen shooting athwart the sky in an elliptic course, with a brilliant pale blue light. After this we were indulged with a few hours of repose, but from 4^h to 8^h A. M. we were again disturbed, and again listened with

anxiety to the severe complainings of our excellent ship. On examination, the proper officer found that she had been lifted up forward three and a half feet, and one and a half abaft. No injury, beyond an indentation from the pressure, could be detected outside, and with the exception of two or three trifling leakages in the upper deck, there had been no mischief below. During the remainder of the day nothing material occurred. The ship was set backwards and forwards with the tide along the mural edge of the in-shore ice, still advancing towards the S.E., but more slowly to-day in consequence of the course of the wind along the elbow of the wall. About $9^h\ 30^m$ P. M. there was an easing of the ice from the sides, and a free space created of three feet on one, and nearly two on the other side, whereby the ship was allowed to slide a little astern and come more upright.

We were favoured with a tranquil night, and on March 11th, after a slight commotion, the whole body set fast to the S. E. At $11^h\ 40^m$ A. M. this ceased, and at noon again set N. W. By the bearing of the land we had gone a little to the eastward. Though there was not much change in the ice inside of us, that to seaward certainly looked less high than formerly, while the reaction which had made the whole body thereabouts ease out, indicated open water to the north. Indeed

the fact of our being driven to this distance from Frozen Strait, explains at once how it was that Sir E. Parry saw so much open water off Winter Harbour. In all probability it was at this very moment equally free from all but young ice, as the prevalent winds would have cleared it from every more solid impediment. At 1^h P. M. the black thermometer was 43°+. The ice continued perfectly still, and the day being fine, some of the men amused themselves by cutting out figures from blocks of snow, bringing them as they were finished within a few feet of the starboard bow, and depositing them on a smooth piece of solid ice for exhibition. The oddity of the grouping provoked a smile. The most conspicuous figure was that of a female, favoured with a most liberal allowance of bust, arms akimbo, a very slender waist, great deficiency of hips, and legs deplorably curtailed. In justice however to the delicacy of the artist, it ought to be observed that the limbs were supposed to be enveloped in a straight tight gown, ornamented with a fringed apron falling so low as to disclose only the substantial feet and still more substantial ankles. Grouped around this principal personage, were various little boys in hats and trowsers; houses, forts, vessels; and a heavy piece of ordnance, doubtless intended as the symbol and guarantee of her sovereignty. She was attended, moreover,

I should rather perhaps say guarded, by a sort of fierce wolf dog, which amidst all changes maintained its post by its mistress's side. I encouraged this humour of the men, glad to perceive that their minds were free enough from care to indulge in it. Indeed the first warmth of the sun and the tranquillity of the ice had dispelled the notion of immediate danger, and the light-hearted sailors yielded to their feelings and enjoyed the hour while it lasted.

After 6^h P. M. the tide set towards the S. E., and notwithstanding the calmness of the weather and the decreasing flow and ebb, there were at long intervals, distant sounds, that portended nothing favourable. As these increased in strength and rapidity, the various cracks and openings near us gradually drew closer, but without squeezing the ship. At length, after many rushes and many sudden pauses, the larger remnants of the floe to seaward came slowly nearer, preceded by ruins which, though insignificant as compared with what had been, were still massy enough to make a fearful clamour as they were sunk beneath and wedged against the ship's bottom. At this time (past 9^h P. M.) she showed symptoms of suffering in the hull, which was evidently undergoing a severe ordeal. Inexplicable noises, in which the sharp sounds of splitting and the harsher ones of grinding were most distinct, came in quick

succession, and then again stopped suddenly, leaving all so still that not even a breath was heard. In an instant the ship was felt to rise under our feet, and the roaring and rushing recommenced with a deafening din alongside, abeam, and astern, at one and the same instant. Alongside, the grinding masses held the ship tight as in a vice; while the overwhelming pressure of the entire body, advancing from the west, so wedged the stern and starboard quarter, that the greatest apprehensions were entertained for the sternpost and frame-work abaft. Some idea of the power exerted on this occasion may be gathered from this:—At the moment which I am now describing, the forepart of the ship was literally buried as high as the flukes of the anchors in a dock of perpendicular walls of ice, so that in that part she might well have been thought immovable. Still, such was the force applied to her abaft, that after much cracking and perceptible yielding of the beams, which seemed to curve upwards, she actually rose by sheer pressure above the dock forward, and then with sudden jerks did the same abaft. During these convulsions many of the carpenters, and others stationed below, were violently thrown down on the deck as people are in an earthquake. It was a moment of intense suspense; and to avoid confusion, the hands were called, and the officers

with their respective crews stationed at their boats, ready for lowering and securing them on the larger parts of the floe. All this was done by the first Lieutenant, under my inspection, with the utmost coolness and promptitude; and thus prepared, we waited the result. Heaven, however, again protected us, and at 11^h P. M. all was in dead repose.

An examination for the purpose of ascertaining what injury had been sustained was immediately commenced by clearing the bread-room; and, so far as our compact and heavy cargo would permit the inspection (for we were afraid to move it lest the solidity and means of resistance should be weakened below), little was detected on the larboard side and right aft. But on the other, at eight feet from the round of the quarter, one of the stringers, nine inches thick, was found severely split, though the extent of the mischief could not be seen, owing to the diagonal doubling across it. Four of the lower-deck beams also had been lifted from their pillars three-eighths of an inch. The well was sounded every five minutes, and at first we thought she did not leak; but the unwelcome truth was forced upon us, when, from five to ten inches were reported. This was soon cleared out, and subsequently she made about an inch and a half of water an hour. It was now, therefore, certain that the ship had

been seriously strained; and as it would be necessary for the future to inspect narrowly the complaining parts, I caused the bread, which had hitherto been stowed there, to be taken up, and placed, carefully covered over, on deck.

March 12th. The ice began to set to the eastward, and at the dawn of day a narrow lane of water was descried ahead, extending north and south. On going outside, the ship was seen fairly lifted on the ice forward, and fearfully wedged up abaft. She was in fact four feet eight inches above her usual line of flotation. The ice was much pressed up at certain points, and closely jammed in all; a circumstance easily accounted for by the fact, that as we were nearer the mural ridge, this also had undergone a change in its outline: for though still, at unequal distances, thrown up in smooth and perpendicular cliffs, terminated by peaked or jagged tops, there were spaces between these corresponding with the rest of the crushed masses around. We fancied, moreover, that farther inshore there was another similar ridge.

We assembled at Divine Service as usual on Sunday, and returned thanks for the protection which had been so signally and mercifully afforded us; and in this, if I might judge from the earnest and devotional tone of the responses, there was no want of sincerity. Noon came peacefully. We had undoubtedly advanced along

the high land, and were bringing the lower point ahead clearer into view. The weather was calm: the latitude 64° 8′ 30″ N., and longitude 81° 5′ W.

After midnight, March 13th, there was a commotion heard to the northward, but it did not extend to the ship, and again we had the luxury of a quiet night. In the morning the ship was found to have settled down a few inches, although, with the exception of the tidal lane, there was no open water in sight. One of the officers attended by a couple of men attempted to reach the shore to the eastward, but after a rather tedious walk of two or three hours, he found so much interruption from narrow but open cracks leading into the principal lane, that he halted. He had seen the fresh tracks of an enormous bear. About $8^h\ 30^m$ P. M. I heard a faint rush under the stern, and from that time until midnight there was considerable under pressure, which, with occasional cracking, in that part especially, raised the vessel up an inch or two more. Finding that, notwithstanding the shores which had been fixed in the bread-room and elsewhere, there was still an immense strain fore and aft, we determined on increasing the number, and for that purpose immediately selected the best and fittest spars on board. Thrown up and nipped as we were under the resistless action of three

hundred miles of drift ice, it was obvious that if any thing did happen, it would be as sudden as in all probability it would be serious ; and I therefore issued a general order to the officers in charge of the boats, to the following effect: that whenever it should be considered necessary to lower the boats, they were to see them first removed far enough from the ship's sides to avoid accidents from any motion which might be going on, and, if there were time, to lighten them of the stores always kept there ; they were then to be hauled to separate pieces of the largest ice, and placed, together with the stores, in temporary safety. The invalids (if the case were urgent) were to be taken care of by the crews to which they severally belonged, and the medical officers were to see that such coverings and protection from the weather were provided them as the pressure of circumstances might permit. A man was to be left in charge of each boat and cargo ; after which, the officers and their respective mates and crews were to return on board and make their reports to me.

On the 14th March the barometer continued to fall, and the wind increased to a fresh gale, accompanied by snow and much drift. At intervals, indeed, the ship was quiet, but more frequently cracked and strained, in a manner that showed how severely she was suffering.

Aug.ᵗʰ Seaforth del. L. Haghe Lith.

The CREW of H.M.S. TERROR SAVING the BOATS and PROVISIONS on the NIGHT of the 14ᵗʰ MARCH.

This was more particularly felt in the after cock-pit and bread-room ; and four more shores, with diagonal bracings from the stringers to the orlop beams, were fixed up. The ice was too close to get soundings, and the weather too misty from small snow to allow the land to be seen, or observations to be got. We seemed, however, very little nearer the mural edge. At noon the wind was N.N.E., squally, and at times blowing a gale. The thermometer (air) 3°—. Almost immediately after there was a visible motion ahead of the ship, and the ice then began to set slowly to the westward. At $2^h\ 30^m$ P. M. the weather cleared enough to allow of our seeing the land, a point of which bore S. 22° E., while the centre of the blue buff was S. 62° W. The gale continued unabated, blowing very hard in squalls, with occasional lulls. A little after 7^h P. M. the advancing ice began to press hard upon and underneath the stern and quarter, causing considerable cracking fore and aft. No motion, however, could be detected at the surface. For the following four hours the pressure at times was alarmingly severe, lifting up the lower-deck beams three-eighths of an inch, and twice throwing down all the upright shores. After this had passed, the ice was forcibly driven to the eastward, and though we were never entirely free from pressure, yet the cracking sounds were not

so loud. March 15th.—The ship seemed suffering much below, though again no motion was perceptible from the deck on the surface of the ice. The leak also had slightly increased.

In the morning the weather was still thick and misty with the same sort of small snow, resembling the sort of spray or congelated vapour experienced when to leeward of open water; the gale continuing to blow hard in squalls. That we should make some advance, therefore, was not surprising; but, considering the extreme closeness of the ice, no one certainly had expected to see the ship not far from the low point which formed the eastern extreme of yesterday. Such, however, was the irresistible power urging the entire body forwards, that we were now actually within four miles of the low land on the beam; and from 8^{h} A. M. the ice drove rapidly along this shelving beach, composed, apparently, of coarse gravel and stones. No rocks were seen. It was of importance to get soundings, but after a forenoon's trial, and with the loss of ice chisels, &c., the utter impossibility of cutting through the underlayers of ice, compelled us to abandon the attempt. Near the shore the ice was thrown up in some places from twenty to thirty feet; and the mural line, which had for a space disappeared, here began again and stretched out to another low point almost ahead. As we rounded the

Capt.n Smyth del.

J. Hughe Lith.

H.M.S. TERROR THROWN UP BY THE ICE, MARCH 15th 1837.

London, J. Murray, Albemarle St.

curve of the land the pressure and strain were violent on the larboard quarter and bow, forcing the ship upon the ice, and raising her so much as to bring the eleven feet water mark in sight fore and aft. Several rushes succeeded and lifted her up more by the stern, again raising the beams and causing a severe strain on the diagonal shores. The whole of the ice continued to set eastward, producing in its progress a jerking motion as it was checked by the shore ice and the land. At noon the weather was misty, with the wind blowing fresh in squalls from N. W. by N.: barometer 29. 17, always falling; latitude observed 64°. 3′ N.

Up to this day, however anxious, we were yet safe; but we were now destined to witness trials of a more awful kind. While we were gliding quickly along the land—which I may here remark, had become more broken and rocky, though without attaining an altitude of more than, perhaps, one or two hundred feet—at 1^h 45^m P. M. without the least warning, a heavy rush came upon the ship, and, with a tremendous pressure on the larboard quarter, bore her over upon the heavy mass on her starboard quarter. The strain was severe in every part, though from the forecastle she appeared to be moving in the easiest manner towards the land ice. Suddenly, however, a loud crack was heard below the mainmast, as if the keel were broken

or carried away; and simultaneously, the outer stern post from the ten feet mark was split down to an unknown extent, and projected to the larboard side upwards of three feet. The ship was thrown up by the stern to the seven and a half feet mark; and that damage had been done was soon placed beyond doubt by the increase of leakage, which now amounted to three feet per hour. Extra pumps were worked, and while some of the carpenters were fixing diagonal shores forward, others were examining the orlops and other parts. It was reported to me by the first Lieutenant, Master and carpenter, that nothing could be detected inside, though apprehensions were entertained by the two former, that some serious injury had been inflicted. In spite of the commotion, the different pieces of our floe still remained firm; but being unable to foresee what might take place in the night, I ordered the two cutters and two whale boats to be lowered down, and hauled with their stores to places considered more secure; this was accordingly done, though not under two hours and a half, even with the advantage of daylight. The ship was still setting fast along shore and much too close to the fixed ice; but it was not till past 8^h P. M. that any suspicious movement was noticed near us: then, however, a continually increasing rush was heard, which at $10^h\ 45^m$ P. M. came on with a heavy

roar towards the larboard quarter, upturning in its progress and rolling onward with it an immense wall of ice. This advanced so fast, that though all hands were immediately called, they had barely time, with the greatest exertion, to extricate three of the boats, one of them, in fact, being hoisted up when only a few feet from the crest of the solid wave, which held a steady course directly for the quarter, almost overtopping it, and continuing to elevate itself until about twenty-five feet high. A piece had just reached the rudder slung athwart the stern, and at the moment, when, to all appearances, both that and a portion at least of the frame work were expected to be staved in and buried beneath the ruins, the motion ceased; at the same time the crest of the nearest part of the wave toppled over, leaving a deep wall extending from thence beyond the quarter. The effect of the whole was a leak in the extreme run, oozing, as far as could be ascertained, from somewhere about the stern-post. It ran in along the lining like a rill for about half an hour, when it stopped, probably closed by a counter pressure. The other leaks could be kept under by the incessant use of one pump.

Our intervals of repose were now very short; for at $12^h\ 50^m$ A.M., March 16th, another rush drove irresistibly on the larboard quarter and stern,

and forcing the ship ahead raised her up on the ice. A chaotic ruin followed; our poor and cherished court yard, its wall and arched doors, gallery, and well-trodden paths, were rent, and in some parts ploughed up like dust. The ship was careened fully four streaks, and sprung a leak as before. Scarcely were ten minutes left us for the expression of our astonishment that any thing of human build could outlive such assaults, when at 1^h A. M. another equally violent rush succeeded; and in its way towards the starboard quarter threw up a rolling wave thirty feet high, crowned by a blue square mass of many tons, resembling the entire side of a house, which, after hanging for some time in doubtful poise on the ridge, at length fell with a crash into the hollow, in which, as in a cavern, the after part of the ship seemed imbedded. It was indeed an awful crisis, rendered more frightful from the mistiness of the night and dimness of the moon. The poor ship cracked and trembled violently; and no one could say that the next minute would not be her last and, indeed, his own too, for with her our means of safety would probably perish. The leak continued, and again (most likely as before, from counter-pressure) the principal one closed up. When all this was over, and there seemed to be a chance of a respite, I ordered a double allowance of pre-

served meat, &c. to be issued to the crew, whose long exposure to the cold rendered some extra stimulant necessary. Until 4h A. M. the rushes still kept coming from different directions, but fortunately with diminished force. From that hour to 8h A. M. every thing was still and the ice quite stationary, somewhat to the westward of the singular point, terminating as it were in a knob, which was the farthest eastern extreme yesterday. We certainly were not more than three miles from the barren and irregular land abeam, which received the name of Point Terror. To this was attached a rugged shelf of what for the time might be called shore ice, having at its seaward face a mural ridge of unequal, though in many parts, imposing height, certainly not less than from fifty to sixty feet. Such had been the diminution of our nucleus, that the ship was now within four hundred yards of the water line of demarcation between the floe and the land ice.

I was naturally anxious to ascertain as far as possible the amount of damage received; and, on inspecting the outside of the ship with the first Lieutenant and carpenter, we saw that the fore-foot was completely exposed, the ship having been literally lifted up on the surface of the same ice, which had formerly, as I have said, imbedded her up to the flukes of the anchors. How far she was

from the water's edge could not be ascertained, though it was seen from the marks, that she was heaved up seven feet abaft, whilst on deck the ascent in walking forward was considerable. The larboard side was found to be flattened and indented in such a manner, as to make it probable some injury had been sustained about the timbers near the line of flotation, in a direction six or eight feet from the main channels forward, and the quarter on the same side was bolstered up as high as the tafrail by one of the largest floe pieces, which pressed severely on one of her weakest points. These appearances with the facts of the damaged stern post and the leaks, raised a doubt in my mind, how far the ship might be trustworthy when the ice should slacken off sufficiently to let her down to her bearings; and, though every precaution had been adopted with respect to the provision, &c. on deck, which was ready to be thrown on the ice upon any sudden emergency, and other preparations had been made for the worst; yet, when instead of the ice remaining, as we had fervently hoped, stationary, it began again to move in a body to the eastward, and there was every reason to expect during the night a similar visitation to that of yesterday; I thought it my duty to collect the opinions of the officers, the ice mate, and some of the leading men, who had

had much experience among ice. They agreed that a light boat with provisions should, if possible, be landed, to serve as a last resource to communicate with the Hudson's Bay Company's Factory, in the event of the loss of the ship. Other opinions were also given, creditable to the good sense and firmness of those who uttered them; and as the greater part of them coincided with my own, I felt more comforted and assured. All that could be done immediately, was to get on deck some more sails, with flour and other provisions, and one of the cutters having been removed to a firmer piece of ice, the two whale boats were again hoisted up for greater security. In the meantime we were rapidly setting to the eastward, and by noon had passed the point, and opened another line of higher and more hilly coast, with ranges above and beyond the land forming the beach. The crew were now put on full allowance of provision. The weather continued misty, with abundance of small snow: the top of the highest land in sight was S. 63° W.; latitude 64° 4′; wind N. W. by W., fresh at times; barometer, 29. 25, thermometer 12°—.

During the remainder of the day there was some disturbance, not very material, and in the evening we appeared to be crossing a bay and nearing higher land ahead. During the

night rushing noises were occasionally heard astern and to the north, and though these once or twice intimated their approach by some suspicious sharp cracks, yet we reached the morning of the 17th without serious molestation. The wind then came all at once from S. E. by S. nearly ahead, bringing with it a load of vapoury mist, small snow and drift. The land was not visible, but it was evident we had got much nearer to the edge of tidal ice; for several well-marked hummocks, which had been our companions for months and weathered out every gale, had in the comparative stillness of last night disappeared altogether, taking with them very liberal portions of the surrounding ice. The wind had the effect of setting us slowly to the westward, and though it gradually drew ahead, yet there was no squeezing of the ice, and St. Patrick's day was one of comparative enjoyment; nor in the midst of our own disasters did we forget to wish all prosperity to the "Gem of the Sea." The only drawback was the incessant clanging of the pump, which was still found indispensable to keep the ship clear from water. Meantime there was no lack of employment, especially on the outside, where a large party with pickaxes, ice chisels and shovels were fast reducing the bulk of the towering wave that propped up the stern. To-

wards evening a lane of water opened not far from us towards the shore, which, however, soon closed, and the night set in beautifully clear and tranquil.

At daylight of the 18th the coast line was distinctly traced from S.E. by E. ½ E. to W. by N., the nearest land abeam being about four or five miles distant. The character of the country was now shelving, with hills of moderate altitude; on the regular and apparently even summits of which were isolated cones, and other steep and rounded hills, totally covered with snow. Extending to the eastward the appearances were similar; only, that over a point, and something to the south of it, was a distant range of high mountainous land, answering the description of that about Seahorse Point, from which we were now not thirty miles distant. We experienced, moreover, that peculiarly keen cold against our faces, known by the term of the "barber," which must have come from the eastward, as the lane of water was all but closed. At 7^h A. M. a slight rushing noise was heard to seaward, and more faintly alongside. The ice was then setting slowly to the westward, and about $11^h\ 10^m$ A. M. a second weak rush just reached us, and the motion stopped. At $2^h\ 30^m$ P. M. the ice began to set slowly to the eastward, and from its closeness to the wall made a low grinding noise. For the rest of the day it con-

tinued quiet; but the wind being very light from the westward, a faint disturbance was heard in the first watch, supposed to arise from an attempt of the ice to open a little.

March 19th. The same sounds, but more distinct, were audible more or less frequently until the forenoon, and sometimes they were accompanied by rushes that set every one on the alert. Indeed, on looking minutely round, a few fresh cracks were discovered, and we were obviously much nearer to the tidal lane, or rather wall, the interval between the two bodies of ice not exceeding two feet, though how this had happened we were somewhat puzzled to understand. There was much frost smoke rising from small cracks around, which rendered the land rather indistinct. After 8^h A. M. we drifted west again, with rather an accelerated motion. Divine service was not omitted, and at noon the weather was fine but cold, out of the sun, the thermometer in the shade being $20°-$. At $1^h\ 30^m$ P. M. the ice commenced setting to the eastward, the wind then being light from the land. Soon after 4^h there was a small lane or opening between the ship and the wall; and about the same time a great noise was heard in the direction of the starboard bow. Every thing was again quiet by midnight, when the wind veered to the south.

March 20th. As the tide changed a grinding sound was produced along the mural edge, and at broad daylight, though there was a very hazy atmosphere, occasioned by the frost smoke, we could see that there was a lane of icy water half a mile broad, separating the sea from the land ice, and that it extended in a direction north-west and south-east as far as the eye could reach. A little past 7^h A. M., when the tide made to the westward, it grew narrower; and, on a nearer inspection, we found we were getting continually closer, in consequence of pieces streaming off at our boundary. On the other hand, the surface of the water became immediately covered with young ice, infinitely too thick to move a ship through. The people were employed in clearing away the higher portions of ice thrown up alongside to starboard, as well as in stopping a leak over my cabin. At 1^h 15^m P. M. the ice set to the eastward, and during the latter part of the day the bay ice increased very fast, from whence it was concluded that we were driving further off the land, which the density of the frost smoke concealed from view.

March 21st. Many had been the forebodings of what was to be expected from the coincidence of the full moon with the equinoctial day; yet nothing more had occurred than a freshening breeze from S. by W., which drove us easily off,

or backwards and forwards, along the coast. The latter was still obscured by frost smoke, which rose in dense clouds from the ever-shifting black lanes of water, instantly converted, on the least cessation from action, into firm bay ice. The sensation was that of intense cold, when exposed to the breeze charged with frozen vapour, but the temperature was not only bearable, but even pleasant, when under the lee of ice, and open to the warmth of the sun. Our cutters were still on the floe pieces, for the ship remained precisely in the position into which she had been thrown on the night of the 15th, and one pump was quite equal to keep her dry; but as it was uncertain when she might come upright by the easing away of the ice which bound and poised her up, I had every thing in readiness to hoist them to the davits, and to set additional pumps at work without a moment's delay. About 10^h A. M. a glimpse was caught of the land; but as only the lower part was discernible, the precise whereabouts could not be determined. Neither holes nor vapour were seen to the north-east. At noon, it could not be ascertained in which direction the ice was setting, so great was the haze. The barometer had risen to the height of 30.58. Wind south, moderate. Thermometer $10°-$, and in the sun $11°+$.

This was the day for the examination of the

crew; and I was much gratified to learn from Doctor Donovan's report that, with the exception of the three on the sick list, who were themselves improving, the rest were in a fair state of health, notwithstanding the lameness which still, though without pain, oppressed some of them. To occupy the crew they were desired to remove the mounds and other irregular heaps of ice round the ship, and to dig down below the bows. The forefoot being thus partially cleared was found to be much worn away, and judging from the state of the bolts, was considered to have received considerable injury. The ice which imbedded the starboard bow was, therefore, quickly cleared away; and on a nearer inspection, the carpenter recommended cutting away the protruding part of one bolt to prevent its catching against the ice, and at the same time suggested the propriety of placing some iron plates over that portion of the injured part which was out of the water. By evening this was accomplished; two more plates, three feet four inches long, and nine inches wide, being secured with eighteen iron deck spike nails on the forefoot, immediately beneath the iron sheathing of the bow, which was all that, under existing circumstances, could be done. The keel could be just felt at the length of an extended saw under water; and the carpenter was always of opinion

that it had received little or no damage. There was a great deal of frost smoke between us and the land, and up to midnight all was tranquil.

March 22d. At daylight we seemed from the bearing of a known hill, to have been set off and rather along the shore to the eastward. As before, only black lines of open water appeared to windward, though the extent of bay ice was evidently greater, and certainly at the nearest part, not more than four or five hundred yards from the ship, which, however, fortunately continued fixed in the same position. During the forenoon we drifted westerly, and again in the afternoon slowly to the eastward; the conical hill at $3^h\ 30^m$, bearing S. 31° W. About 8^h P. M. the wind gradually drew more to the east, and began to blow fresh in squalls with every appearance of a gale; but subsequently, March 23d, settled at south-east, and moderated. The ice had again set to the westward, with no other alteration than that of causing several lanes in the bay ice. Up to noon, all was quiet. The weather today was warm enough, with the thermometer at 10°+ in the shade, and 32°+ in the sun, even to be oppressive; the blackened thermometer was as high as 39°+. In walking to the bay ice, some of the officers saw the fresh track of a bear not very far from the ship. We had drifted so much off shore, and in the afternoon more particularly,

had gone so far to the north west, that at 4^h P. M. the blue bluff seen on the 11th, was in sight, and the fact of an opening between it and the nearest land of Point M'Clure, being now evident, it was called Gore Island. The high hills too, which were noted about the same time, were equally visible, and proved to be the same, the principal of which we had hitherto been calling the Conical Hill, but now distinguished by the name of Mount Minto, after the first Lord of the Admiralty, and which every one had considered to be quite distinct from those that had been passed. At our first station two rather deep bays were clearly made out, with low land to seaward, and here the low land was somewhat nearer to us than the high; so that, although it was impossible to discern whether there was any ice between the two, I am not certain that the former may not be islands stretching out from the latter. As night drew on the wind got round to the N. E., by which means the pack that inclosed the ship became detached in one or two places from the more seaward body, causing a lane of water to appear. On the other hand, we commenced going eastward, slantingly towards the shore.

March 24th. There was a prismatic lunar halo with paraselenæ. In the morning we were more to the eastward, but began to retrograde at 10^h. By noon we had drawn closer to the land, and

were evidently ploughing up the intervening bay ice. About $7^h\ 30^m$ P. M. a slight noise was heard on both quarters, the wind then having got more to the westward, from which however it subsequently changed to N. E. with light snow. A faint glimpse was caught of the aurora in the same quarter. March 25th the body of ice again moved easterly, and at daylight, some suspicious cracking was audible to seaward; while the wide lane of bay ice, which had intervened between our pack and that fixed to the shore, was now diminished to three hundred yards of squeezed up pieces, which, for the present, served as a fender against the wall along shore. The weather was too thick to make out objects distinctly; but from the appearance of the nearest land, we seemed to have almost reached the place from which we were blown off when the southerly wind came. A crack in one of the remaining large pieces was detected during the forenoon; and, in the early part of the afternoon, the ice to seaward of the crack on the quarter began to open out a little, allowing us to get soundings, which were found in sixty-four fathoms, on a bottom of gravel, consisting of grey granite and small particles of limestone. The snow which fell a few hours afterwards, was of a soft and flaky kind, different from any we had seen since the autumn, and betokening, as we hoped, a southerly wind.

In the evening two more narrow openings were observed; the one about a hundred paces from the larboard bow, which it crossed, joining the principal lane along shore; the other a little farther astern, stretching out to the N. N. E., where it ran into the one on the quarter. These separations were the more remarkable, as the wind latterly had been from the north and east, and might have been expected, therefore, to bind the ice against the shore. However, as we were at no great distance from Hudson's Straits, the ice east of our position might have streamed away into that opening, leaving the body behind it more space for motion. The room thus made caused no parting of the heavy pieces, between which the ship was lifted up, and notwithstanding a grinding noise heard from the north, we did not alter our position in the least.

March 26th. Small snow continued to fall throughout the night; and although when morning came it was too thick to see the land, it was evident we were setting to the eastward. There was an opinion that less water found its way into the ship, but on ceasing to use the pump for forty-five minutes it was found that twelve inches had accumulated. The men, however, were not kept so constantly at work as before, so that either the leak was reduced, or they contrived to throw more water out in a given time. About

noon soundings were obtained in ninety-four fathoms, with a bottom of green mud, which implied a change of situation; still the weather was so misty from small snow incessantly falling, that no land could be made out. The narrow lanes closed quietly. The temperature was 20°+ at the north, and 29°+ facing the south. About 4^h P. M. the land was in sight from S. E. by S. to N. W., distant at the nearest part about three miles. Nothing occurred during the night, beyond a slight rumbling of the ice to the east about the turn of the tide.

March 27th. The weather was tolerably fine, though misty from the same cause as before. The land was barely visible. We were now separated only by a narrow breadth of bay ice from the tidal wall, which was ground perfectly smooth, curving very gently to a distant point; and, on looking carefully at the shore ice, we were delighted to observe the surface much clearer and more free from points and inequalities. There certainly could not have been the same sort of grinding and confusion here, as we had so lamentably experienced to the north-west.

When Mount Minto bore S. S. W. ½ W., soundings were found in one hundred and twenty fathoms, the ground being yellow mud, with small pebbles of felspar. A single raven flew round the ship, and again made for the land

whence it had come. Sunday afternoon, the breeze veered a little to the south; and as we set westward, the seaward body of ice drew off, so as to leave a perceptible channel within us. In the evening the weather became suddenly overcast; and the wind drawing round to the south, came first in gusts, then in heavy squalls, which, with the intelligence that a lane had opened ahead, made me apprehensive of some sudden change. The boats and stores, therefore, on either floe were frequently visited, and scouts were sent to examine the cracks that on other occasions had been known to open. At this time, however, they were closed. It may be here mentioned, that as soon as the gale had fairly set in the barometer began to rise very rapidly, that is to say, with a *southerly wind*, in the same way that it had often previously done with a *northerly one*. It varied in the ascending scale considerably in a few hours, and still continued to rise; nevertheless, the gale blew with much violence throughout the night, at the same time lowering the temperature.

March 28th. The ship cracked so as to induce an idea that she was easing down; but, in all probability, it was merely the effect of the gale coming full on her uplifted bulk, and causing her to shake at every squall. However, at break of day our inclination was precisely the same, though

we were farther away from the land—a change which the proximity of the two icy boundaries yesterday had taught us to appreciate. There was still a mist hanging over objects in that direction; but a dark gleam of water was visible, forming a part of the lane now much encumbered with old pieces of ice, that must have been detached from larger masses to the eastward. To seaward was still one unbroken body. In the forenoon the sky became clear, the wind having shifted to S. E. A few well-defined clouds were remarked upon as a sight which had not for a long time been observed. Our decks were naturally much lumbered from the store of provisions which I considered it still necessary to keep there; but as the small snow which constantly fell was found to injure them, and particularly the bread, the whole was now restowed, and covered well over with sails. As night drew on the wind again got round to the N. E., and at intervals came in heavy squalls which drove the ship fast towards the land.

March 29th. The weather became more threatening; and in a short time a cracking noise was heard to windward, accompanied by a grinding sound among the bay ice just within us. At 5^h A. M. the narrow lane about forty paces astern suddenly opened from fifteen to twenty feet, again partially closing a few hours after.

The ship creaked more than usual from the force of the breeze, indeed so much that it was thought possible we might have set against the land ice; and in truth, when daylight came, we were closer to the shore itself than at any other period. But the most extraordinary fact was, the great distance that the ice had drifted, with the wind abeam, to the westward; for we now found ourselves, much against our wish, in the precise spot where we had been so roughly treated on the night of the 15th. For a considerable interval the ice remained motionless, so far as the tide was concerned; though on going to sound, which was done in sixty fathoms, the loose young ice was observed to rise and fall between the edges of the larger pieces as it would have done in a sea or swell. Afterwards for two hours and a half, the entire body set very slowly to the eastward, and then stopped. The wind was N. N. E., and blew fresh in squalls: thermometer 16°+, and in the sun 22°+. The next twenty-four hours nothing occurred worthy of notice; and at noon of March 30th, the only alteration near the ship was in the lanes ahead and on the larboard quarter, which presented a considerably larger open surface. It was remarked that as one edge receded from the other, calves and smaller pieces of old yellow ice emerged from beneath into the temporary free space.

Our acquaintances, the ravens, paid us daily visits, and sometimes perched on the pinnacle of the most elevated hummock, apparently watching the movements of those on board. We explored the surface of the lanes for seals or other animals, but in vain, until a couple of curiously speckled dovekies appeared playing about, though, from whence, no one could tell. A wish was expressed to shoot them, to which I—whom their lively motions and seeming enjoyment amused and gratified—was unwilling to accede. The mottled plumage, however, was too great a temptation, and finally one of the officers set off to secure them; he waited for some time in ambush gazing at them, and hoping they would come within shot, till at last wearied and cold, he was fain to relinquish the attempt. In the evening much snow fell, and two fresh holes of water appeared on the starboard quarter within a short distance of the ship.

March 31st. The ice remained perfectly tranquil round the ship, though daylight showed a greater difference than had been noticed for a long time. There were several lanes of open water immediately surrounding our pack, while near the same places, but to seaward, were holes and openings in various directions; most of them at right angles to the land. In addition to these, some of the waves of ice had

eased down; and to our no small astonishment, in one instance, no sooner had the ponderous mass fallen into the opening space, than a seal started up from beneath, in evident alarm. Up to noon, the wind being moderate from the westward, the ice moved a little in the opposite direction. Soundings were obtained in fifty-six fathoms, having a hard bottom. The weather was always thick: thermometer 12°+ and 13°+; barometer 30. 31. All continued tranquil; and as the western tide made, the ice closed about the lanes, &c. turning our pack, and, consequently, the ship's head about three points more to the south.

April 1st. The wind came from E. N. E., and about 5^h A. M. the ship's head was veered more to the west, almost dead on for the land; the ice then moving slowly to the westward. The change in the weather was such as to thaw the snow on the sails and housing, from which we beheld the novel sight of water dripping and running along the decks. And although there was not the least alteration in the uncomfortable position of the ship, yet it was gratifying to observe the pump less constantly in action, and still more enlivening to behold the people clearing the wet deck and removing the accumulated rubbish of a winter's gathering. At 2^h P. M. the temperature in the sun was 35°+, and 29° 5 +in

the shade; and, such was the effect of the transition, that large well trodden cakes of ice adhering to the anchors and round the bows, which a week before would have remained firm under the blows of a sledge hammer, now peeled off with little effort, enabling us entirely to clear the upper works. The breeze increased to a gale during the night, and at one time a faint aurora was visible in the N. W.

During the 2d of April we were set rather to the west under the influence of the easterly wind. In the night the wind veered to N.N.E., and on the 3d, a slight commotion was heard to windward, but without result. At daylight several small holes of water were seen, and there was a manifest diminution in the height of some of the waves and mounds, though in other respects the ice was perfectly close. The weather continued overcast, though the temperature was 25° + and even 30 on the south side. A slight difference was perceptible on the hills from the effect of the mild weather.

The season was now rapidly advancing, and under different circumstances I should have commenced making the necessary preparations for more active employment. As it was, although the ship remained cradled precisely as before, it was deemed prudent to caulk where there was no strain from external pressure. Accord-

ingly, the carpenters were set to work in board, and some slight leaks on the quarter were stopped. The largest unbroken remnant of our former floe, which lay between us and the shore on the starboard side, as yet had borne every encounter; but at 4^{h} P. M. to-day, without visible cause adequate to such an effect, it split in two, and the parts opened out about eighteen inches. The crack ran close to the cutter, which, together with the stores, was quickly removed nearer the ship.

On the following day, 4th April, the medical officer following up the system acted on throughout the past winter, carefully inspected the whole crew; and with the exception of two men, before spoken of as still labouring under scorbutic symptoms, they were reported free from positive illness and rapidly improving in appearance. In fact, the mild weather, though still generally below the freezing point, had produced a visible alteration for the better in all of us. This was the night of the new moon; and, rendered wary from the past, we could not entirely divest ourselves of every anxiety, though there was nothing immediately prognosticating further change. However, on the next day, April 5th, all was tranquil, and from daylight to 8^{h} A. M. the ship was carried something more to the east than before, but the ice obeying the returning tide soon

retrograded. Much light snow had fallen; and for a short interval when the sun had power to dart its rays through the misty atmosphere, it melted at once, so that water was to be seen lodged in the hollows of the boats' coverings. Soundings were found in one hundred and thirty fathoms. By 7^h P. M. we had passed two fresh barriers thrown up on the mural edge of the land ice, and at 8^h we were stationary, having been set considerably farther to the eastward than at any former period since last August.

April 6th. All was still quiet; and when day broke, it was seen that we had gained more ground to the eastward, being apparently drifted along the tidal edge of the land ice, which hereabouts was smoother than that more to the west. Unfortunately the land was obscured by a mist, but, from the faintness of the receding outline, it appeared to form a curved bay, across which we were setting to and fro with the variations of the tide. In the evening we had neared some high land; and at $11^h\ 30^m$ A. M. soundings were obtained in twenty-seven fathoms, which were the least we had yet found. At noon the weather continued misty, but a point of land bore S. 24° E., and a black mark on a distant hill N. 79° E. Wind N. by E., moderate. The sun shortly broke through, and partly dispersing the mist, showed us actually within a mile from

the beach, where numerous huge fragments of dilapidated floes were strewed about in confusion. They occupied the space lying between the tidal edge and the land, and did not appear to have been of recent production. The density of the atmosphere had deceived us in other respects also; for that which, from its white smooth glare, had been set down for land ice, now turned out to be the even shelving side of the snow-clad coast. After 5^h P. M. a lane of water opened out on the larboard bow of the ship, and this seemed to be the beginning of a general movement immediately around us; for soon after, the ice in every direction was evidently easing down from those formidable ramparts into which it had been thrown, and settling into a freer space. We were at the time crossing the bend of a bay, and it was observed that the ice was set by the tide and current in a circle, as if within the influence of an eddy; but as this, from the straight line of bearing of the southern land, was scarcely probable, the effect may have been produced by the meeting of counter currents from the north and south. Be the cause, however, what it might, we were in momentary expectation of seeing the two remaining floe pieces on which we were partly poised, separate, so as to allow the ship to settle into the water; especially, when the outer portion of the cracked

floe, on the starboard side, suddenly parted from its better half, and glided mysteriously away among the still rugged but looser fragments near. But when our favourite look-out, which we had jestingly denominated Mount Pleasant, the faithful companion of our wanderings from Cape Bylot to this spot, staunch and unshaken amidst the crash and ruin which had surrounded it; when this, too, departed, and became lost and indistinguishable amongst other peaks and hummocks, what could we look for but an utter dissolution of all the parts of our system? In spite, however, of all these defections, in spite of upper or under current, spring or neap tide, for the present we remained firm as a rock; the only alteration being, that the direction of the ship's head was exactly reversed, having been turned round from the south to N.W. by W., in much the same manner as had been the case last autumn at the western end of the island. All these things plainly demonstrated that the eastern ice was gradually drifting through Hudson's Straits into the Atlantic, and making way for our liberation; which I still sanguinely hoped would take place, so as to enable me to carry into effect some of the objects of the expedition. A narwhal was supposed to have been seen in one of the adjoining lanes, and was described as being spotted, like those seen last

year. During the night there was repeated noise among the ice; but as it was rather that of easing down than the harsh grating of pressure, it did not much affect us. Twice we sounded in thirty fathoms, and about two miles off shore in twenty-two fathoms, the bottom being composed of rock, shells, and mud.

Daylight of the 7th showed that we had already gone and were still going rapidly to the south-east, along a hilly coast, apparently consisting of barren rocks with precipitous cliffs, based upon a low shelving slope, which passed imperceptibly into the shore ice; both being covered with snow, and only distinguishable, in some places near the margin, by the black tops of protruding rocks. Here, then, was a totally different formation from the smooth and rounded low tract lately passed, and answered better to the land about Seahorse Point.

There was a beautiful parhelion for a short time, while a W. S. W. breeze was blowing about a great quantity of small snow, but it soon disappeared. At noon the coast was distinctly seen from S. E. $\frac{3}{4}$ S. to Mount Minto at W. $\frac{1}{2}$ N., terminating at the furthest east abruptly in a bluff point. There was another bluff something nearer to us. In the afternoon lanes of water opened out between us and the shore; but as the wind blew very fresh off the land, it only

bound us the more against the sea ice. As he tide changed, these places soon closed; and again at daylight, April 8th, opened much wider than before. We drifted past the high point, which was then ascertained to be the north-western extremity of a fine open bay, called after Sir James Gordon; which making a sweep of about two miles, with a radius from three quarters to one mile, formed a second point, and thence stretched to the farthest land in sight. Much frost smoke was rising from the open water beyond this land; and in consequence of the mist it caused, we were unable to make out satisfactorily whether two comparatively low spots were continuous with the main coast, or islands off it. One fact, however, was beyond question, viz. that the land ended there; and that the boundary, therefore, must be Sea Horse Point. Could the ship have been once freed from her icy fetters, I should soon have set the matter at rest; since the fresh gale of the night, combined with a favourable juncture of tide, had so marvellously dispersed the inner, and indeed some of the outer ice, that there was no other impediment sufficient to have prevented our getting entirely round it. As it was, I had no choice but to remain quiet until nature should set us free; satisfied for the present if I could purchase exemption from nipping. Every day,

however, the sun had more power, and another month or six weeks might effect much. My object was to try the Welcome.

A wind coming from the land at west, chilled us all; but the thermometer did not fall below 10°—: and as the wind veered more to the north it speedily rose again. A couple of large seals were seen, but neither fish nor birds, notwithstanding the expanse of water along the coast. At noon there were soundings in fifty-eight fathoms, by which time there was scarcely any water to be seen, and the ship had considerably neared the land, being not more than two miles off. Though, as I before observed, our invalids generally continued to improve, yet some of the number could not yet conquer the obstinate rigidity of the muscles of the leg. Of the two who remained still on the list, Alexander Young (who was also the person first affected) was now in so low a state as to make his recovery extremely doubtful—much to the regret of us all; for his happy disposition and steady conduct as gun-room steward had made him a favourite with the officers, who left nothing undone to minister to his comfort. Every thing on board favoured the health of the crew; for, since the adoption of the funnels for carrying away the vapour, and still more within the last ten days, during which the hatchways and fore scuttle had been thrown

open in the day-time, our lower deck had been perfectly dry and pure. Until 8^h the ice was quiet; but about that time, there being a light wind blowing from the north, a low grinding was heard at the outer edge of the outer floe-piece, and soon after, the two or three holes of water in that quarter closed up. The commotion was followed at 10^h P. M. by a heavy rush of the seaward ice against the same piece, on which it not only made encroachments, but shook it throughout its whole dimensions so as to intimate the effect on board by the short cracking of the after part of the ship. Ultimately a barrier was thrown up about eighteen feet high. It became prudent, therefore, to secure the provisions and stores, which were alongside the cutters, and to have the latter in readiness to hoist up; since, notwithstanding the immense masses still appearing in every direction, there was not another piece proper to receive them. Nothing further occurred at that time; but when daylight came, on April 9th, the starboard floe-piece was found to be cracked in several parts. At 5^h A. M. the ice was setting to the east, and the temperature had fallen to $26°-$. However, at 8^h it had risen to $10°+$. Shortly afterwards the seaward ice became agitated, and ground so suspiciously against our diminishing territory, that it was considered prudent to hoist up both the cutters. In the

interim we continued to drift east, and being almost across Sir J. Gordon's Bay were unquestionably farther in that direction than at any time before. With the turn of the tide the direction of the drift changed as usual, and until 4^h P. M. we were setting rapidly to the west.

April 10th. It was too obscure to see what was going on; but at 4^h 50^m the wind had got to the northward, and the ice commenced setting to the east. The breeze increased rather more than was desirable, and the ice being extremely close packed began about 8^h A. M. to make a grinding noise. This soon became louder as larger masses were thrown up; and looking towards the tidal edge of the shore ice, we observed an immense piece, many tons in weight, forced up vertically to a height of between twenty and thirty feet. Scarcely had we had time to remark this, when a heavy rush of the seaward ice from the windward called our attention to the opposite side; and, after watching many piled-up mounds tumbling with a rattle on our starboard floe-piece, we were greatly surprised at seeing the latter slowly assume a convex form, and, after gradually attaining a moderate elevation, splinter into fragments, one-third of the original piece breaking off and sailing heavily away to the eastward. While this was going on, a similar inroad was made in a line towards the starboard

bow, and matters were beginning to wear a serious aspect, when, in an instant, the noise was hushed. The whole body, the weight of which, greatly augmented by the breeze, we had to bear our part in sustaining, was brought up by the curve of coast where we were embayed. Indeed it could not be otherwise; for any wind coming from between N.W. by W. and N.N.E., must of necessity drive the entire body of northern ice to this its only place of egress into the Atlantic. While the turmoil was going on, two of the men carelessly loitering about soon found themselves separated from us, and it required some activity in scrambling over the moving mounds before they succeeded in reaching the ship. The wind blew fresh and keen from N. by W., the temperature being at 0°, though 23°+ in the sun.

The carpenters now commenced caulking wherever they could outside the ship. At 7^h P. M. a slight noise was heard among the ice about a mile to the westward of the ship, which, for the succeeding two hours, drove fast towards the straits; but as the tide grew weaker the onward motion of the ice was of course checked, while the breeze urged the whole western body with irresistible force against it; the effect of which was, that at 9^h P. M., while we were making the curve of a bay, our floe-pieces were suddenly assailed by a

powerful rush of the seaward ice, which, thrusting us close to the tidal wall so as to cause almost a dead pressure, began to grind and plough up the edges on every side. Frequently during the process there were brief intervals of cessation in one part or another, followed by a quick repetition, in a direction perhaps exactly opposite. Again, there would be a general pause, not unlike the silence which succeeds a heavy crash of thunder; but suddenly, when hope was beginning to whisper that all was over, on it came again with a burst of deafening roar, destroying every thing in its furious course. Wherever our eyes were turned they were met by rising waves of ice rolling their burdens towards the ship. One in particular, not more than thirty paces away, had reared itself at least thirty feet on our inner floe-piece, which, strong as it was, gave way under the accumulated weight; and a mass of several tons being thus upturned and added to the original bulk, the whole bore down slowly upon our quarter. The ship herself was high out of the water on the ice, but this overtopped her like a tower. Meantime we were getting nearer and nearer to the land ice: large rents were showing themselves in the ice, at right angles, on each side of the fore chains: the ship unable to right herself began to complain,

and the scene every moment became more dark and threatening. Extra purchases were fixed to the pumps; the hands were turned up; the sick provided for; and though nothing effectual could be done for our preservation, the attention of the men was occupied in hoisting two of the boats higher up. On former occasions there were large pieces of ice around, any one of which would have afforded a sufficient deposit for boats, provisions, or whatever in the exigency of the moment might have been placed upon it. Now, on the contrary, we were surrounded by crushed and broken ice, some, indeed, ponderous enough, but all too angular and fractured to trust a boat upon: nor could we ourselves have found footing so long as every part was more or less in motion; or, even if some of the more active and hardy had succeeded in doing so, still they could not possibly have reached the land. Knowing this, and feeling acutely for the many beings entrusted to my charge, it may be conceived with what intense anxiety I listened to the crashing and grinding around. The strength of the ship, tried and shaken as it had already been, could hardly be expected to withstand the overwhelming power opposed to it; and, what the result of that night might have been it is impossible to say and painful to contemplate, had not an overruling

Providence mercifully averted the crisis, by suddenly, and at the moment of greatest peril, arresting the tumult. In less time than it could be spoken, there was the stillness of death, and we were saved! The watch was called, the crew dismissed; and I trust that none that night laid his head on his pillow without offering up a devout thanksgiving for the mercy which had been vouchsafed him.

April 11th. About half an hour after midnight the wind having veered more to the west, the ice was observed to slacken out; and this it continued to do so rapidly, that at daylight the large wave and other ramparts of ice on the larboard side had considerably subsided, and ultimately they disappeared, leaving only some straggling pieces to mark the scene of so much terrific grandeur. To seaward no alteration had taken place, and we had leisure to contemplate the devastation that a few short hours had brought home to the very side of the ship. The cracks were wider apart, and our territory greatly diminished; we were, however, further off shore, and at $5^h\ 50^m$ A. M. were driving quietly to the east towards the low point. In our progress a deep bay or, possibly, inlet was seen, for there might be a passage through its south-eastern termination, though the land appeared continuous from the crow's-nest, whence ice was made out on the other or eastern side of

it. The high land which joined it, and along which we were setting, rounded down to a point, between which and one or two islands, for we could not satisfactorily make them out, was unquestionably an icy channel. Soundings were found in forty-eight and fifty fathoms, with a muddy bottom. At noon the ice was stationary. At $12^h\ 45^m$ the ice began to set slowly to the westward, and the breeze freshening at the same time forced it off shore; so that in a few hours a lane of water was plainly discovered along the mural edge of the land ice, while that within us, and bordering our floe piece, was 'brash,' such as under favourable circumstances might have been sailed through. At 6^h P. M. we were going slowly towards the east; and, being now at a different angle with the land, thought that there certainly was a passage through the bay just mentioned, which had been concealed before by the overlapping of two projecting points.

At daylight of the 12th we found ourselves still farther off shore, and the breeze had not only kept us more than usual to the west, but had caused several holes of water to open in different places. There was indeed a continuous channel in shore for several miles, extending however, no farther than the point. Beyond, all was compact; the necessary consequence of a leeward situation, such as this would be with the

wind blowing slantingly from Hudson's Bay and the Straits. Considerably to the west, near the spot where we had passed the last three weeks, was a dark water sky, and accordingly from the crow's-nest, water was seen in the direction and to the extent so pointed out. It seems, therefore, certain that on this coast the first place where a channel is to be looked for is along the land, though probably with some winds not extending far, unless on favourable occasions, such as the one experienced in the last autumn, when an unhampered vessel might have sailed round the island. Farther out, whatever the prevailing wind, a ship must be immovably beset, and dependent altogether upon the drift of the entire body of ice: if that take her into clear water, well; if not, she must submit to the event. Undoubtedly a vessel is more secure when beset than when comparatively at liberty. In the former case, so long as the ice remains firm, she is exempted from serious pressure, and tolerably safe; whereas along the land, every rock, bank, or projecting point, catches the moving mass, and subjects the unhappy vessel to all the disastrous effects. It is in this sudden stoppage, or in nautical phraseology, 'bringing up,' that all the danger lies.

April 13th. The wind had veered a little to the east, and freshened, so that by noon we had been

driven so far to the west, as to bring into sight land that we scarcely expected, and, in truth, did not wish to see again from this side of the island. It was gratifying however to find ourselves much farther off shore, as well as to behold a greater portion of the intervening space occupied by fresh ice, forced in by the wind and tide from the Straits, which would serve as a barrier to keep us off from the mural edge, in case a change of wind should drive us near our former station. On the next day we found ourselves set still farther to the westward without other alteration, but during the afternoon and night the barometer indicated a change in the weather. Accordingly at night it blew fresh from N. by E., and on the 15th the gale increased with squalls and snow. The slightest change in the direction of the wind had always an immediate effect on the ice, and we were set nearer to the land, though from the mistiness of the atmosphere we could not say how much. About 9^h A. M. the young ice, formed around, rose up under an easy pressure to the height of a foot upon the edge of our inner floe, now but forty paces distant from the ship. This however did not continue long, and at noon all was quiet, except the fresh breeze which came stronger after every lull. Snow of a soft and flaky kind, unlike the glittering chrystals of the winter months, fell lightly but

incessantly, and obscured the land. At 2h P. M. some of the ice near us became again agitated for about ten minutes, and then ceased, after which the breeze gradually diminished in strength, and towards midnight drew more round to the east.

April 16th. Every thing was quiet. The weather was overcast, and after divine service, examining the north thermometer, I was delighted to find it exhibiting a temperature of $32\frac{1}{2}^{\circ}+$, being the first time this year that it had risen above the freezing point. Little lines of water soon dribbled from the snow on the weather side of the deck and other places; and great was the pleasure with which I remarked that instead of instantly congealing as usual, it maintained its liquid form. Sir E. Parry had the same degree of temperature at Winter Island, a little more than two degrees north of our situation, on the 27th, *i. e.*, exactly one week later in the year 1822.

On the 17th and 18th the weather was mild, but still so overcast that the points of the land could not be distinguished. Again on the 19th all was tranquil. The crew were inspected by the medical officers and reported to be in an improving state. Three however were still far from well, and one (Jones) had rather retrograded. Several others, though

able to do their duty and free from pain, continued to walk lame from the rigidity of which I have so often spoken.

April 20th. The outside caulking of the ship was completed as far as practicable; and though under some disadvantage, on account of the pressure of our inclined position, yet the carpenters were desired to proceed with the same operation along the water ways and upper deck. The sails were also under examination, and had prudence permitted us to restow the six months' provisions, which sadly lumbered the quarter deck and gangways, we might soon have assumed something of a ship-shape appearance. This however could not be until the ship was fairly afloat, and it was necessary therefore to be satisfied with having all in readiness for good or evil. At noon the ice, affected by the constant blowing of the northely wind, which had prevailed since the day before, was found to have gone considerably to the eastward. A large flock of birds, supposed to be ducks, though more likely dovekies, was observed flying northward.

At daylight of the 21st, it was found that the spring tide had set us farther east than we had yet been: a hole or two of water also was seen within a few hundred yards of the ship, and the ice had the appearance of easing down,

a natural consequence of the offshore wind. The temperature which had been lowered by a breeze from the N. W. to 2°+ rose again as the sun gained power, and at noon was 18°+ and 53° .

At 2h P. M. the ice commenced setting to the east, and by 6h P. M. we had drifted so far to the south east, as to bring into view some new land, low, and apparently forming a shoal point, inasmuch as at some distance off, there were four rounded mounds of high and heavily packed ice, thrown up upon what we concluded to be sand banks or reefs. As the bearing (true) was S. 37° W. it was certain that we were opposite to Seahorse Point, which was in latitude 63° 43′ N., longitude 80° 10′ W., and variation, 49° 00 W. This is the most eastern part of Southampton Island, but too low to be visible from Point Leyson, though, as Captain Lyon remarks, the heights behind might be seen from thence; and it seems to me most likely that the high land which he saw, and had supposed to be the continuation and boundary of the range terminating in the other extremity at Cape Comfort, was really Mount Minto, which is fully one thousand feet high, and the adjacent ridge that was still within view of the ship. It had always been an interesting speculation with me what would be the direction taken by us, or rather by the ice driven by

the current, on arriving at this spot; for it was difficult to say whether we should be set round the point along the coast towards Caryswan's Nest, or to the East of Mansfield Island towards Labrador, or, directly through Hudson's Straits into the Atlantic. Confiding in the observations of those who had preceded us, and assuming, therefore, that the meeting of the tides from the Welcome and Fox's Channel was somewhere about Caryswan's Nest, I held to the first opinion; conjecturing further, that the numerous detentions likely to be encountered from different winds, eddies, or other causes, would eventually lead us near open water, perhaps quite as early as any practical use could be made of it.

In the course of the evening a flock of fifty ducks was seen approaching, but after coming within five hundred yards, they wheeled round and flew away to the south east.

At 2^h A. M. of April 22d the ice in its course to the eastward eased out so much, that many calves sprung up from beneath the pack, and soon after a few holes of water were seen. By 8^h A. M. the south point bore S. 52° W.; but the ice, as usual, with the change of tide setting again in the contrary direction, at noon, the extreme point bore S. 32° W., and Mount Minto N. 80° W. The wind was moderate from the S.W.,

and though otherwise fine the temperature was only 24°+.

April 23d found us twelve or fifteen miles off Seahorse Point, which, nevertheless, we did not get beyond, the wind being light and very unsteady. Certainly either the tide was not strong, or the whole body of ice moving together prevented our observing it. Some ducks were seen, apparently looking for open water. About 4^{h} P. M. the ice slackened considerably round the ship and to the southward, causing in the course of two hours several lanes and holes of water, but too far disconnected to have aided our escape, even had we been at liberty. It was not a little singular that with so much water there should have been no appearance of seals, seahorses, whales, or any other denizen of the Arctic regions. This evening, however, a visitor was announced in the following manner. Detached groups of the crew were sauntering about the ridged and extremely uneven ice that formed the nucleus of our floe-pieces, when the Corporal of Marines, who was somewhat apart from the rest, gazing listlessly upwards at the peaked hummock above his head, saw, to his amazement, quietly looking at him, a white bear. At the first glimpse he started off with all the speed which circumstances permitted, leaped a wide opening, which, on common occasions,

he would not have attempted, and in breathless agitation announced the intruder. Instantly were heard a hundred voices in all varieties of tone, from the shrill scream to the hoarse bawl: the news flew fast, and gathered as it flew; so that, by the time it had travelled from the forecastle to my cabin, it saluted me with the intelligence, that *two* bears, an old and a young one, were close to the ship. On reaching the deck I saw, indeed, a young bear about ninety paces ahead of the ship, shaking and eating a piece of an old jacket which it had just picked up. The first Lieutenant and Mr. Gore fired, and, both balls taking effect, the animal staggered away about forty paces and fell dead. It was a female cub of last year; and though on being opened the stomach was found entirely empty, there was still some fat adhering to the flesh. To us the adventure was a novelty, and gave occasion to some jests.

By midnight the wind blew fresh from the south-east, soon closing the holes near us; and during the next twelve hours, so far had the ice taken us off shore, that at noon, when the sun was fortunately clear for a few minutes, it was evident that the ship's head was now pointing E.N.E., in a line directly for Mill Islands, and that we were not less than seven or eight leagues from Seahorse Point. In this new posture of affairs it was deemed expedient imme-

diately to refit, so far as could be conveniently done. The small sails and geer had already been put into order, and now the topsails underwent an inspection, while the bulwark inside was caulked, the seams paid over with a layer of resin, scraped, and primed with a coating of yellow paint. The tanks were also ordered to be cleansed in order to their being filled; and, as the comparatively small dimensions of the fragments of ice which now surrounded us, as well as its loose and disconnected state, would necessarily render futile any attempt to save a stock of provisions, &c., in case of accident, and there no longer, therefore, existed any reason for keeping it on deck, I gave directions that every thing should be restowed; except a sufficient supply of pemmican, preserved meats, &c., to be kept on deck for each boat in readiness for any emergency, against which it was still necessary to provide, as it was uncertain whether the ship would float, when once more in open water. At all events, whenever that time should arrive, whether soon or late, and whether with good or evil fortune, it was clear that the promptest activity would be required from all on board; and that it was necessary, therefore, to have all prepared beforehand.

Up to noon on April 25th nothing occurred worth mentioning. We were perhaps a little farther from the land, the nearest part of which

bore S. 85° W., distant by estimation twenty-three miles. Mount Minto was once seen, and by admeasurement was forty miles away. Towards evening the breeze became steady from south-east, and gradually freshened as night drew in. A small bird, supposed to be a snow bird, flew near the ship. In the early part of the 26th the wind increased to a gale from the southward, and placed us in latitude 63° 57′ 02″ N.; but the horizon being rather misty no land was seen, and the sun was not clear enough to get sights. This day terminated the life of Alexander Young (marine), who had been long slowly sinking under his fatal malady. There had been occasional fluctuations which afforded a ray of hope; but, at length, after lingering on the verge of dissolution during a wearisome period, in which he displayed no want of mental energy or proper resignation, he yielded to the overmastering disease, and with some appearance of suffering closed his mortal career. At his own request the body was opened by Messrs. Donovan and Mould, who found the liver affected and very much enlarged. The blood was poor and extremely serous, almost indeed separated into two parts; and some water was lodged in the region of the heart. The following day, April 27th, the last sad offices were paid by the officers and crew, and a third poor shipmate was committed to the deep.

Soon after the mournful ceremony was concluded, a little snow-bunting was observed to hover for a few seconds over the aperture through which the body had been lowered, and then to fly away.

For the preceding eighteen hours the wind had freshened considerably from the south-west, and at noon the weather being dark with snow no observation could be got, neither was any land in sight, though we considered we were setting with the entire body of ice towards Mill Islands. The people were occupied in refitting different parts of the ship, and our winter housing was taken down. So great indeed was the quiet we now enjoyed, that the forge was again erected on the ice, for the purpose of making and repairing several articles of which we stood in need. No water was visible: another flock of ducks passed near. In the evening the wind veered to W. N. W., and occasionally blew fresh in squalls. Early on April 28th a few holes of water were observed, but soon closed again. What however was more interesting, was an island faintly distinguished from the mast-head, bearing south-east. At noon it was no longer in sight, in consequence of the ship having drifted to the southward. The temperature had once fallen so low as 1°—, but subsequently rose again to

5°+. The latitude was 63° 58′ N., and longitude 79° 04′ 15″ W., which made us about twenty-five miles from the western extremity of Mill Islands. The wind still blew from the same quarter, neither was there any change around the ship.

April 29th. At daylight land was descried to the south-east, and at noon the bearings, as taken from the crow's-nest, were Mill Island E. ½ N, Salisbury Island S. E. ½ E., and north-east end of Nottingham Island S. ½ E. We still remained undisturbed, though apparently drawing nearer to Salisbury Island, which the haze of the evening shut out from our sight. Another large flock of ducks was observed flying towards the north-west.

April 30th. The wind had veered to north; but from the dullness of the weather our precise situation, with respect to the land, could not be ascertained. One large hole of water was made out about three miles to the eastward, but this soon afterwards closed, giving place to two of smaller dimensions, which opened something nearer to us. The operations of the last week had done much to clear and cleanse the vessel, and the upper deck having been scraped, there was an air of comfort and neatness, to which the climate not less than the anxieties of the winter had for many months rendered us strangers. The coldness of the westerly winds, which in

the night reduced the temperature below zero, and in the day seldom suffered it to rise much above, had proved an annoying drawback to the exertions of the first Lieutenant; unfortunately, however, we were not pressed for time, for at present there was nothing around but one wide range of closely packed ice. Still the end of the month had arrived; the sun beamed brightly and travelled far in its diurnal circuit; the heralds of spring had flown beyond us towards the north, and the gladness of advancing summer was felt by all of us. At 6^h P. M. a part of Mill Islands was seen, bearing N.E. by E.$\frac{1}{2}$ E., and some other land near it, most likely one of the group. The breeze freshened from N.N.W. in the night, and on May 1st the weather was keener than it had been for some time. A momentary glimpse was caught of the land on the starboard beam, but the haze prevented our distinguishing what part it was. The boats, which it may be remembered had been hoisted high up the rigging to keep them above the frowning masses which then threatened to overwhelm us, were now removed to the davits, in the hope that danger of that kind was past. The horizon was still obscured at noon; but from sights with the artificial horizon, the latitude was found to be 63° 49′ N., and longitude 78° 54′ 30″ W.; thus giving the anomalous result of our having been

set to the westward against a westerly wind, and with fresh squalls from the north a progress south of only four miles. For this, I am at a loss to account in any other manner than by supposing the passage between the islands to have been closely blocked up ; so that the southern ice, acted upon by the floods which attend the disruption of the spacious lakes and rivers of the interior, had been pressed forward with such force as to resist even the vast body of ice bearing down upon it from the north. The mast-head thermometer, which throughout the winter had been in a position eighty-seven feet above the sea now varied so little from those on deck, seldom more than 2° or 3° at the most, that it was taken down and the registering of it discontinued ; and I may take this opportunity of observing that there were very few occasions which on trial were found favourable for flying a kite with an appended self-registering thermometer, during the former portion of the winter when the floe was unbroken, and that the operation was utterly impracticable in the latter part, when the ice was ground into thousands of peaked and irregular heaps, mounds, and barriers, which defied the activity of the most alert.

The weather continuing obscured, nothing could be distinguished beyond a mile or two from the ship, and on May 2d there was no change ex-

cept a fresh layer of snow, and a south-east wind instead of a northerly one. Several large flocks of ducks flew past us to the north, and one flock was seen resting in a small hole of open water about a mile to the south. Land was indistinctly seen abeam. The latitude at noon was 63° 39′ N., but the few miles gained to the south would probably be lost again from the change in the direction of the wind. The difficulty which we experienced as to the exact bearings of the land would have been in a great degree obviated, had the observations and charts of the only navigators who, as far as I know, have ever passed between these islands been transmitted to posterity. "Purchas," says Sir John Barrow, in his Chronological History of Voyages into the Arctic Regions, "is blameable, to a certain degree, for the meagreness of Baffin's Journal, and the suppression of a chart which accompanied it; for he admits, in a marginal note, that 'this map of the Author's for this and the former voyage, with the tables of his journale and sayling, were somewhat troublesome and too costly to insert.'" The consequence was, that the true places of these islands were not inserted in the maps; and though the hiatus thus left has been in part filled up by other seamen, and among these, recently, by Sir Edward Parry and Captain Lyon, yet from the fact of

all these officers having passed north, south, or east of the islands, and none to the west, their remarks, however excellent in themselves, were comparatively without value to us. It is therefore, I repeat, much to be regretted that the entire account of Baffin's voyage in 1615 has not been handed down to modern times; for we find it stated that, after getting beyond Cape Comfort, they "tacked and turned the shippes head homewards, without any further search;" and again that, after this, they "passed Nottingham's Isle, near which they remained till the 27th of July, observing the set of the tides, the time of high water, &c., and taking in ballast. From thence they proceeded between Salisbury and Nottingham Islands." For our embarrassment, however, as to the width of the channel between the islands, its depth and dangers, we were compensated by not experiencing any of those turbulent commotions of the ice which had so painfully harassed us before. We now drifted to and fro with the mass, on which the ship was still poised, with little inconvenience beyond the awkwardness of our position and the irksome monotony of the scene.

On May the 3d we were much nearer the land, the north-west point of which bore S. 20° E. The sky was blue, the weather nearly calm; and at noon the temperature was 24° +, and 55° +

in the sun. But that which most pleased me, was the sight of a gull flying towards the north-west. I had never known these birds to arrive earlier than the 7th; and at Fort Reliance, at the east end of Great Slave Lake, more than a degree to the south of our position, the same birds did not appear before the 15th of the month. Hence, though no water was visible from the mast-head, I felt confident that there must be some at no great distance from us. The evening was overcast, and snow continued to fall throughout the better part of the night, but on the next day the sun dispersed the gloom, and the weather, for the first time these several months, became pleasant. Two rather extensive lanes of water opened out on either side, about a mile away from the ship, and at noon Nottingham Island was still in sight. Some flocks of ducks being detected, two of the officers, unable to resist the temptation, went in quest of them. They returned in the course of the afternoon, sunburnt and weary, with the acquisition of two loons instead of ducks; and I cannot but suspect that what before had been taken for ducks were also loons. A few dovekies and three gulls were the only other kinds of birds that had been seen; but later in the day a white whale showed itself for a few minutes. As the temperature in the shade at 2^{h} P. M. was 46°+, it was not surprising

that they should have experienced much difficulty in picking their way over a surface so extremely rugged, but I was scarcely prepared to hear, as was the fact, that water had been found ankle deep. This was the effect of one day's sun; and if the thaw continued at the same rate, there seemed every probability that a large portion of the lighter pieces of ice would soon be resolved into water, and that our release would be earlier than we had anticipated.

May 5th. We appeared to be something nearer to Nottingham Island, which, from being high and hilly, now declined by an easy slope to the southward. A lane or two of water was still open; and, besides many extensive floes in shore, one, at least a mile and a half long and quite even, was discovered at no great distance from us. Such floes could not have subsisted where we had been; and it was therefore inferred that, up to that time at least, there had been no violent pressure in this quarter. This was the more remarkable, as it is a fact well attested that, about the spring tides, when the ice has space to move about in, the violence and irregularity of cross sets, together with that unaccountable "bore," or furious rush of waters, of which I have so often had occasion to speak, have been experienced by all who have frequented these straits, perplexing the Commanders,

and hampering their vessels so as to create alarm for their safety. Sir Edward Parry mentions the buffetings his ship received from the eccentric motion of masses of ice, which, under the influence of a fresh working breeze, he was unable to avoid; and on several occasions Captain Lyon was so startled at the sudden tumult of waters around the Griper, that he was under great anxiety to know where the "wild eddy" would carry her; once, indeed, he says, "a noise as of a beach surf was heard, and the fog being very heavy, the boats were lowered to tow our head off the supposed shore, but the sky was suddenly cleared by the breeze, and no land was seen in any direction."

The crew were kept employed in refitting, &c., and in the evening the top gallant masts were swayed aloft and pointed. The next day, May 6th, brought a rather fresh breeze from the westward, and, at noon, the south-west point of Nottingham Island in sight, bore S. E. by S. $\frac{1}{4}$ S. But one lane of water was seen, and that was to the south; beyond it, however, there appeared to be a water sky.

On May 7th the ice was perfectly close, and at noon we had been set nine miles to the south, and five to the west; the extremes of land at 8^h A. M. having been from N. 84° E. to S. 60° E. For the whole of the day the ice carried us to the

southward, but still not a drop of water was in sight. Three burgomasters (Larus Glaucus) flew past, and were followed by some flocks of loons.

May 8th. There was no change in the ice, but several flocks of birds were observed winging their flight to the west. At noon we had gone nine miles to the south of yesterday's position. On clearing away the booms to caulk the deck, the seams were found more open than was anticipated, and numberless rents were discovered between them, all of which were now filled up and made tight. The ice remained perfectly quiet, and on May 9th there was no water in sight, nor could the land be seen on account of the haziness of the weather. About 7^h 30^m P. M. before sunset, the sky became clearer, and showed us the coast of this part of Nottingham Island, extending farther than we had yet seen to the south-east. The distinct view now afforded us, gave an outline more marked than any hitherto passed, for irregularity and sinuosity, ravines and isolated hills. Of the hills, many had an elevation of no less than one thousand or fourteen hundred feet, and it is probable that some, in the interior, were still higher, as their peaks also were faintly visible. One, the nearest of the detached heights, sprang abruptly from the comparatively smooth summit of a shelving slope that rose

from the yet lower land abutting the sea, and in shape resembled the roof of a large barn. Two others, differing from the first in having more ridged and rounded extremities, next caught the eye, which, from these, wandered over a more regular surface, until arrested by a gorge or pass. To the north and west of this succeeded a range of uneven heights, extremely varied and novel. The southern termination appeared like an island, but was supposed, in fact, to be connected by a small ridge of low land. The summits and rounded tops of a portion of this extraordinary island were still enveloped in their winter mantle, but innumerable patches proved the influence of the advancing season.

May 10th brought no change: not a living creature was seen, nor a drop of water detected within scope of the horizon; the ice, so far as we were conscious, was motionless, though our observations assured us that we were drifting gradually to the south east. As dusk drew on, two holes of water were seen in a south east direction, but up to midnight they were not enlarged. Very early on the 11th an immense number of loons flew towards the west, and were shortly afterwards followed by additional flocks which seemed to pursue the same course. The sky was overcast, and the land consequently indistinct; but there was little doubt that we had

moved slowly towards the southern point of the island. Soon after a light breeze sprung up from the south west, and several lanes and holes of water shortly appeared in that and other directions, though the ice immediately round the ship continued exactly the same. Over all these places there was a dark horizontal cloud. The atmosphere being favourable for seeing remote objects, it was observed, that beyond what had been thought the termination of Nottingham Island, there was an extensive line of low circuitous coast, apparently dipping into the water, or rather losing itself in the ice; and to the right of it, at a bearing of S. 35° E., other land was detected, which could be no other than one of Diggers Islands.

May 12. After midnight the breeze freshened from E.S.E. and drifted us somewhat to the N.W. along the land, now within a moderate distance; a fact curious enough, since no pressure had occurred inshore to make any vacant space for an admission. Such, nevertheless, was the case. In the forenoon the wind veered to south and blew with considerable violence in squalls, bringing light snow which dissolved on the deck as it fell. An interesting event was noticed by one of the officers yesterday evening: Lieutenant M'Murdo was outside the ship on the ice, and his attention being awakened by a

shrill screaming overhead, he looked round, and saw a large white hawk with the tips of the wings and the end of the tail black, chasing, what he imagined to be a solan goose, but which, from his description, I considered to be one of the northern divers. The hawk kept always above and repeatedly struck at it but without accomplishing its purpose, when, scared by the sound of Lieutenant M'Murdo's dog-whistle, it wheeled round and went off slowly towards the south, in a direction for the coast of Labrador. The only hawks of a similar description that I remember to have seen, were a few, found on the rocky borders of Artillery Lake in latitude 62° 56′ N. and longitude 108° 24′ W.; and it may be worth remarking that the broad feathers of the tail are held in such high estimation by the more warlike tribes of Indians, that there is scarcely any thing they will not give to obtain them.

In the latter part of the day the snow was converted into drizzling rain, the first we had had for more than eight months, and in date corresponding with remarkable precision to the same circumstance in the interior of the Hudson Bay Company's territories. At Fort Franklin, in latitude 65° 11′ 56″ N. and longitude 123° 08′ 52″ W. in 1826, the first shower of rain fell on the 11th of May. At Fort Enterprise in 1820, being in latitude 64° 28′ 24″ N., and longitude 113° 06′ 00″ W.,

and at Fort Reliance in 1834, in latitude 62° 46′ 29″ N. and longitude 109° 00′ 39″ W., rain fell about the same period; and now off Nottingham Island, in latitude 63° 11′ 44″ N. and longitude 78° 56′ 30″ W., it came on the 12th May 1837; so that, in this respect, two degrees of latitude and forty-four of longitude occasioned far less difference than might have been expected under circumstances and modifications so various. A solitary raven and some large flocks of ducks or loons were seen going to the north-west, probably to open water somewhere thereabouts. The rain, which ran down the rigging and across the deck, served to tighten the former, and to prove the leaky condition of the latter. It was, indeed, to be expected that, twisted and shaken as the ship had been, to say nothing of the chinks occasioned by the climate, some leaks would show themselves, especially about the butt ends; but the water found its way through so many places, that unfavourable as the position of the ship was for caulking, it seemed prudent to do so at once, even though a further repair might be required hereafter when she came upright. Accordingly on the 13th the carpenter commenced operations, and the temperature being much higher than usual, the opportunity was taken to rattle down the rigging. No open water was made out, but many dark clouds were

hanging round the horizon. In the afternoon the weather was much clearer though the sky remained overcast, and there was certainly more land free from snow than on the previous day: the ice, too, surrounding the ship was hourly becoming more honeycombed on the surface; fresh water found its way into the cracks; several pools gratified the sight ahead and astern as well as in the cavities between the huge mounds; and, such was the softness of the under ice in some few places, that both officers and men, while endeavouring to pass along, frequently sank above the knee into water, until stopped by the substratum of ice. At 8^h P. M. some long lanes of water towards the south-west and Digge's Islands appeared, and the whole sky in those points assumed a dark steely-blue hue, which, as it prognosticated, brought about midnight abundance of rain, the thermometer being then at 34°+.

May 14th. The welcome rain did not abate, and the surface of the pack, stripped of the frozen snow, displayed a variety of tints, by which the age of its component parts might easily be detected; among these, it was not the least interesting to observe the dim and sombre hue of irregular mounds, ridges, or peaks of age-stricken ice, peering out conspicuously amidst the more recent and brighter formations, like

feudal castles frowning over a level waste. After attendance at divine service, I was informed by the officer of the watch that the ship had settled down three inches forward, but an alteration so trifling was not apparent on deck; and, what was far more consolatory was the fact that the leak had taken up so much, as to make it an easy task to keep it free with one pump, used four or five times a day. At noon the weather was thick and gloomy, with light rain, the temperature being 35°+. Drizzling rain, ultimately succeeded by snow, fell during most of the night, and at daylight of May 15th water could be made out from the crow's-nest, extending from south-east to west. The thermometer did not fall lower than 29°+ during the night, and began to rise rapidly after 8^{h} A. M. For the first time this season the sails, which had been wetted by the late rain, were loosed to dry. The land was dimly visible and the sky still overcast, but the same dark horizontal clouds were always seen to the south-west. The breeze freshened as the day declined, and some lanes of water displayed themselves to the southward as usual.

May 16th. When the land could be made out, it was seen that we had set more to the south, and by noon we were opposite the rounded rocky hill, which had formed the terminating

point of view on the 10th of May. It was remarked that a lower continuation of land ran beyond it, and now, a still more sloping part ended in what, judging from some grounded and up-turned pieces of ice lying off it, we imagined to be a shoal. However, we were evidently drifting clear between it and Digge's Islands, which from the mast-head were seen to bear directly astern, but the main land was not visible. Countless flocks of loons, ducks, and teal were winging their way to the northward, all flying low, and what struck me as strange and unusual, there was not a single one to be found on the water; for though they not unfrequently passed across and round it, as if tempted to bathe and sport awhile, yet restrained, as it seemed, by some more powerful motive, they pressed onward to their destination. At noon the temperature was 36°+, and even in the night, under the influence of the north-west wind, it only fell to 26°. Upon inspection by the medical officers the crew were reported to be in reasonably good health: one alone was unable to do duty, though three or four more, perfectly well in other respects, had not yet recovered the complete use of their limbs. Indeed, Barker's leg was as inflexible as stone. As the sky cleared we were rather surprised to find ourselves full in sight of Digge's Group,

with high craggy land stretching to the eastward. Between the latter and Nottingham Island were several lanes of water, which, either from the change of tide, or some other cause, began gradually to close, but were again found open early on May 17th, the ship having by that time been drifted more to the south-east. Vast numbers of birds whizzed through the grey haze of the morning, which, from a heavy lurid glare, mingled with a dull red tint, had all at once saddened to mist. The sun, however, struggled through it; and as the vapour passed away we were gladdened by the sight of a lane of water in a manner surrounding our pack, besides others not very remote, and dark cloudy patches along the horizon denoting still more. Salisbury Island was also seen beyond the point of Nottingham, as were Digge's, and the wild-looking land a little to the east of Cape Wolstenholm, which must be much higher than was supposed by Captain Lyon, whose description, however, gives an excellent idea of it. "The land hereabouts," he says, "has a very remarkable appearance, being broken into high perpendicular bluffs, of from six to eight hundred feet, between which the rocks were split into deep ravines, descending abruptly to the water's edge, and, at a few miles' distance, giving the idea of their being the entrances to narrow

fiords. The rocks are apparently of gneiss, the strata of which dip, with a considerable curve, to the northward." I may add to this account, that the land behind rises into round and high acclivities, which were then in many parts free from snow. By noon the ice a few miles off assumed a more detached appearance. Speculation as to when and where the eagerly desired event of our liberation would occur was now over, for it was evident that no one could, with any show of reason, assign any preference of place. The wind having set in from the eastward slowly checked the outward passage of the ice, though by the evening we had altered the bearings of the different remarkable bluffs and other projections more than four points of the compass.

During the whole of May 18th we remained much in the same position between the Labrador Coast and the Islands, the temperature at noon being 36°, and 51°+ in the sun.

May 19th. There was no alteration in the ice, and the ship was almost in the same place. About 6^h P.M. the ice commenced setting fast to the eastward, and near the main land seemed to be easing out. Numerous flocks of loons flew towards the south, and one snow bunting was seen. Pools of water formed from the melting of the ice and snow around the ship. The wind having veered round to the north-eastward

brought drizzly rain; and, as the temperature fell during the night to 31°+, the rigging on May 21st was partly coated with ice, which, as the day grew warmer and the breeze freshened, fell on the deck like a shower of glass. The weather cleared up enough by noon to allow of our seeing Salisbury Island, which, notwithstanding a wind directly against us, we seemed to have neared. This, as well as Nottingham Island, were much more free from snow than when seen two days before; and, indeed, a manifest diminution was visible over the surface of the ice; yet no lanes were in sight, and but one solitary hole of water in any direction. A lonely raven visited us for a few minutes, but no other birds appeared. One seal, the first seen for a long time, was observed to rise in a hole of water. The temperature at noon was 36°. The next twenty-four hours produced no change but that which was afforded by continued snow and sleet, eventually subsiding into rain; and on May 22d, exactly eight months since we had ceased to have the control of the ship's motion, there was not a hole of water to be seen from the mast-head, nor was our position at all altered. The temperature had been as low as 29°+, but got up to 38°+. Wind east. The land was seen in the evening, but no change worth mentioning occurred; and after a night of snow and sleet, May 23d found us almost in

the same place. We were then set back a few miles to the westward, until the wind, veering to W.S.W., brought us to our former position, at the same time separating the ice into lanes, which opened and closed more or less throughout the night.

May 24th. The sky was overcast, but about noon Salisbury Island could be just distinguished, and by the bearing we seemed to have been drifted to the east. The temperature was 23°+, but subsequently rose to 37°+. After the favourable account which I had so recently received of the health of the crew, I certainly did not expect to hear of any fresh attack, but I was now given to understand that the malady had fastened on my steward, though no one had been more regular in taking exercise, or more particular about his diet and comforts. The symptoms, it is true, were at present but trifling; but as they had displayed themselves in the same place and manner as in all the former cases, there could be no doubt of the nature of the malady, against which, therefore, there seemed to be no security. The decks were not only well ventilated and dry, but extremely clean and comfortable, and there was certainly no want of anti-scorbutic diet or generous nourishment. I was the more distressed by this new case as fearing that it might extend further, at a time when the active services of every one

would assuredly be required. It was observed that we had gone more to the eastward in the latter part of the day than during the whole of the last fortnight, and as the evening closed Nottingham Island bore astern, making that of Salisbury more abeam. The wind veered half round the compass and brought abundance of snow, which continued without interruption until noon of the 25th, when, from the obscurity that prevailed, no land could be seen. The ice looked white and wintry, the fresh-water pools were all hard frozen; and, with the solitary exception of one opening, probably the effect of the tide, the whole surface was again one compact mass. The temperature was as low as 22°+; wind westerly.

By the 26th we had gone sufficiently to the eastward, to be in sight of the extremity of Salisbury Island as well as of a very high and rocky part of the Labrador coast. On the 27th the ship was set a little to the north-east, or in a direction nearly across the straits. No water was in sight, but immense flocks of loons kept flying to the south. On the 28th the weather was warmer but yet no lanes appeared, though the entire body of ice had assumed a more even appearance and was evidently easing down. Two large birds like swans flew past to the north. The temperature rose at noon to 45°+. A couple of loons were

shot by Mr. Gore. The day was dedicated to the celebration of His Majesty's birth, the crew being allowed an extra store of good things to quicken their loyalty. There was little wind, and therefore little change of any kind. On the 29th the temperature, which had sunk to 27° +, ran up the scale until at noon it reached 48°, and in the sun 64° +. Our sportsman, Mr. Gore after about ten hours' exposure on the ice, became snow-blind. No water was to be seen.

On the 30th the weather was thick with light snow, which shut out the land from sight. The crew were again examined by the medical officers, and reported to be a little improved, though there was not one instance of perfect recovery, and my steward was quite lame. At 6^{h} P. M. the east bluff of Salisbury Island bore N.N.W., by which it seemed we had been set something to the N.E. In the night the wind blew fresh from the S.E., and snow fell without cessation; nor up to noon on May 31st was there any change. Still no water in sight, until at 5^{h} P. M, while the ice in the distance was perfectly close, we were surprised by the sudden opening of a serpentine lane thirty yards astern, extending to either side of the ship. The wind blew fresh in squalls during the night, and the entire body of the ice appeared to be setting to the north-east.

CHAPTER VI.

Feast of Loons. — Mr. Vaughan's Path. — Perilous Excursion. — White Whales. — Carpenters busy undermining Ship. — Result of Labours. — Polar Expeditions. — Narwhales. — Report of Health. — Cannonading Floe. — Cheerful Labours in sawing away the Ice. — Employment for Armourer. — Impediments from Calves. — New Rent discovered. — Report of the Ship's Drift. — Ship bursts her Bonds. — Novelty of Scene. — Stern-post shattered. — Officers' Opinion in favour of Return to England. — Awkwardness of Situation. — Expedition frustrated. — Ship's Draught increased. — Visited by Esquimaux. — Ship struck by a Floe. — Shattered Condition of Ship. — Sail for England. — Arrival at Chatham.

In the diary of the last month I have had few incidents to record, and I am sensible that to the general reader it may have presented little to attract attention. It is, however, the duty of navigators to detail with some minuteness such facts as, however in themselves uninteresting, may hereafter be found useful as guides to those who follow in the career of adventure, and I proceed therefore with my journal.

June 1st. The temperature fell to 23°+, but the lane astern, as well as two or three others, continued open, and some loons and seals being discovered, several parties went in quest of them, but without much success. Much light snow

fell during the night, but the weather cleared up on the 2d; and shortly after 8h A. M. the lanes, or rather the one close to the ship, opened so much, that some of the officers went out in the dingy, while others made a long circuitous walk. The party altogether shot upwards of thirty loons, which being first skinned, and allowed to steep for two days in salt and water, were then dressed like jugged hare, and with red wine sauce and currant jelly, were esteemed by us as nearly equal in flavour. At all events we found them a grateful change from the preserved meats and other cured stock in our possession. At noon the lane began to get narrower, but in the course of three hours I had watched no insignificant quantity of detached pieces of ice stream without noise from the main body, and drift rapidly to the north-east as far as the lane would allow. This was encouraging, as betokening the facility with which a general separation would take place, whenever the barrier farther down the straits should ease off sufficiently to allow of it. Salisbury Island bore directly ahead, and the Labrador Coast was merely in sight. The temperature varied from 22°+ to 42°+. The ice became more slack, and began to assume a promising look to the eastward. Numerous parties were tempted by the novelty to try their skill in shooting, and as the cheerfulness

which the sport was calculated to excite was valuable at the moment of recovery from indisposition, I encouraged the inclination. There were, however, other substantial advantages; for such was the success of the day, that a sufficient number of loons were killed to allow of the distribution of an extra allowance to each mess in the ship. Many, too, were the anecdotes related on the occasion. The Larus Glaucus, or Burgomaster, seemed to defy the powder and shot of the ablest marksman, contenting itself, when struck, with merely looking round, uttering a short guttural screech, and flying deliberately to the nearest wounded loon, which he dispatched in so artist-like a manner as to leave no other remnants than the clean bones and a few of the larger feathers. But the boatswain, Mr. Vaughan, had met with the oddest adventure. Having walked over soft and hard ice along the margins of the different lanes, sinking to various depths in treacherous holes, and always holding a charged gun, ready to fire at the first thing that came within hail, but all to no purpose; he very resignedly stuck the butt end of his piece into the snow, and thrusting both hands in his pockets, walked up and down so much after his usual methodical fashion, that he had soon beaten down a path the exact length of the forecastle of the ship. In this mechanical perambulation

some time passed away, and probably his thoughts were wandering to far other scenes, when suddenly, from among the pieces of ice at his feet, up sprang a walrus. The stranger startled the boatswain beyond measure; and, far from attempting to touch his gun, he stood staring with riveted astonishment at the long tusks, and, to use his own language, the "*grey beard*," of the apparition before him, until the walrus having sufficiently breathed itself, and less curious than the astonished seaman, quietly sank again to the dark recesses of the deep. He then remembered it was a sea-horse, and came on board with the account.

Towards night the ice opened, and streamed away to the eastward past the ship, insomuch that it became necessary to dispatch the boat for some parties, who suddenly discovered that, instead of being on the main pack, they were slowly floating away on detached masses. The utmost extent of water was not more than two miles, in a south-west direction towards Hudson's Bay, and this, during the night, was partially closed, though on June 3d there was an appearance of many slack places in the same quarter. The officers amused themselves in endeavouring to kill an immense seal, that incautiously rolled across a piece of ice within three hundred yards from us; but, notwithstanding

the correctness of their aim, it contrived to reach the margin and plunge into the water. Those of the crew who had been sporting were equally unfortunate, having met with few birds; among those shot, however, may be mentioned a fat dovekie, and a kind of widgeon. The weather cleared and showed us Salisbury Island, which bore N.W. $\frac{1}{2}$ W. At 2^h P. M., it being then spring-tide, the ice, gradually slackening beyond our pack, set to the N.E. for two hours, after which it partially closed again, leaving, however, a few holes, to which some of the officers and men went off, for the purpose of shooting whatever they might find. But about 8^h P. M. there was a partial slacking out of the ice between them and us, and the water being soon covered with brash and sludge, which lay thickly between the larger pieces, it was impossible to send out a boat. The officers, who, being disappointed of their sport, were nearer the ship, found no difficulty in returning; but the men, who had straggled farther, were very differently situated. They had not only a lane to cross, but had to pick their way from piece to piece over two miles of loose ice; a labour which we, unable to render the least assistance, watched with no little uneasiness, lest those who were less alert should fall into the water or be disabled. They managed, notwithstanding, to arrive on board

shortly after 11^h P. M., of course much fagged with their exertions.

June 4th. The ice closed at 4^h A. M., and, with some trifling variety, remained so till noon, when we were about four miles south, and two east, of our former position. The temperature had ranged from 23° + to 42° +, with a light south-east wind. There was no favourable change of any description, either in the afternoon or throughout the night, the ice being rather more compact than heretofore, a fact which I was unable to comprehend, as the wind was much too light to affect it in any way, still less when subject to the counter influence of a spring-tide. The most probable conjecture seemed to be, that this very tide might have dislodged some heavy bodies of ice from the many friths and bays to the north of Resolution Island; and that, aided by the southerly current, together with the light winds which had prevailed of late between south-east and south, those bodies might have been driven against, or partly into, the mouth of Hudson's Straits, and so blocked up the space between that and our position. Certain it was, we had scarcely altered the bearing of Salisbury Island, which at noon was N. 60° W. In the afternoon, while occupied in exercising the crew at small arms, and afterwards in reefing and furling, the wind came from the eastward

with more than usual violence, bringing with it so much snow, that, in the course of four hours, it lay eight inches deep on the deck; deeper, that is to say, than had been the case on any previous occasion, in the same time. The ice was closely wedged, without a single hole of water so far as we could see.

On June 6th there was a partial slackening out, within a few hundred yards of the ship, but the whole soon closed again, forming one unbroken body in every direction. That such had not always been the case in other seasons we are assured from the fact, that Bylot and Baffin found little or no impediment to their sailing past this very spot in June. Still, the Hudson's Bay Company's ships, admonished no doubt by experience, seldom or never leave the Thames earlier than the 6th June; and, without question, last year they must have found that date quite soon enough. At noon the weather, which had been misty, cleared a little, but not sufficiently so to enable us to see land. The temperature varied from 25° to 49° +. The wind now veered to west, and, like that from the opposite quarter, brought snow, from which indeed we were seldom exempted. The ice presented an appearance of opening, and with a fresh breeze down, or, in other words, out of the Straits, it might have been supposed that

this would continue for several hours; yet our conjectures in this, as in many other cases, were wrong, and it closed again almost immediately. Neither was there any improvement during the night, and on June 7th the whole surface was more compact than had been observed for a month past; not a drop of water was to be seen. The thickness of the weather intercepted our view of the land, though, from a hasty glimpse, Salisbury Island seemed farther to the north.

The wind, which continued to blow steadily from the same quarter, but with increasing violence, at length began to have some effect on the immense surface surrounding us; and although at midnight no water was visible, shortly after, on June 8th, a lane opened out astern, extending, with some interruption, three or four hundred yards to the south-west, in which direction several large holes were subsequently seen. The ice immediately astern and adjoining the lane was more loose and disengaged from the larger compact masses than it had previously been, so that there was fresh reason to hope that the seaward body was streaming away from the entrance of the Straits and the neighbourhood of the Labrador coast. At noon we had drifted, by estimation, about eleven miles: Salisbury Island was no longer to be seen. The latitude placed us one mile to the south of yesterday's

position. All repairs about the ship and rigging being completed, there was little occupation to be found for the crew, who, by way of exercise, were regularly drilled by the Sergeant of Marines, under the inspection of Lieutenant Smyth, and made to march quick and travel hard round the upper deck, for an hour or more, until they had been properly breathed for the day.

Having now more pemmican than with our weakened crew could be made use of on boat service, and as this was a perishable article, I ordered it to be issued once a week, in the place of preserved meat; the store of which, if not required, might be appropriated hereafter in any manner Government thought proper. In the afternoon it blew a gale which separated the ice so far as to leave a considerable space of open water, where, for the first time this season, some white whales were observed. At 6^h P. M. land was descried to the south, the bearings of which were from S.W. to E.S.E.

June 9th. There was much loose ice to the eastward, mingled with several smooth and regular floes, which evidently had neither been exposed to pressure nor otherwise disturbed, except as we now beheld them. The ice forming our pack was unaltered in area, though slightly diminished in thickness from the increased temperature of the day. At night the

pools still froze, being invariably found crusted with ice in the morning; still, from the effect of the sun and the heat radiated from the sides of the ship, upwards of two feet of ice and frozen snow had slowly sunk away, thus almost exposing the keel from the fore-foot to the fore-chains, while a deep trench resulting from the same cause extended quite round, exhibiting above it the ruins of the ponderous waves, in the hard gripe of which the whole of the after part of the ship lay immovably wedged. There were no means of ascertaining the actual thickness of the accumulated masses, which in so extraordinary a manner cradled us up, but some of the pieces floating in the clear space were estimated at forty feet beneath the line of flotation; and, indeed, from the force applied during the convulsions so providentially escaped, when the ship with all her heavy load was felt rising under our feet, it could hardly have been less, while from the irresistible pressure that drove one mass under another, it might have been even more. It seemed, therefore, indispensable, that before we could get free, the weaker bodies surrounding us and as yet adhering, should be entirely detached, so as to afford room for our supporters to glide away easily. An operation of this magnitude could only be accomplished by natural means; but in order to divert the

minds of the crew, they were set to work with pickaxes, spades and axes, to reduce the formidable summits of the nearer waves, and mark out the most feasible line of escape, when accident or time should favour us. There was a great deal of loose ice between us and the land, which the fineness of the day brought clearly into view. It turned out to be Charles Island; so that the late gale had driven the ice rapidly to the eastward, and, as regarded the ship, something to the south. At noon the land bore from S.S.W. to E.S.E.; and, as seen from the deck, had the appearance of three islands. The ice closed again.

The adverse direction from which the breeze came kept the ice much closer than of late, and for a few hours we seemed to retrograde; but in the night this ceased, and up to noon, June 10th, we might be said to be stationary, the ice then being very compact. The temperature varied only from 30° to 38°+. The following night we were set a few miles off the land in consequence of the breeze having veered to south-east, and increased in strength; and though for a brief interval some openings were observed, yet they soon closed again, and in the morning of June 11th, the ice was again perfectly compact. However, soon after divine service, the weather became so fine, that little rills of water

were pouring down from the more elevated pieces of ice into the hollows and thence into the sea. Before noon, a hole had appeared within fifty paces of the starboard quarter, and, singular enough, without other apparent cause than a trifling motion in the looser floating ice. About the same time, and without any noise, a serpentine lane of water unexpectedly broke on our sight, at no greater distance than one hundred and sixty yards. It was connected with the hole just referred to, and extended across the bow towards some brash and mixed ice to the south-west, in the limit of which direction, for some days past, a dark lane of water had been more or less visible. The appearance, as if by magic, of an opening so near the ship, was probably the most fortunate event that could have happened, for until some such occurrence, we could indulge but slender expectations of a speedy release; whereas, now, the hopes which frequent disappointment had dimmed suddenly brightened, and cast an enlivening gleam on the future. The temperature had not been lower than 30°+.

Up to noon of June 12th, the only further change was another separation between two of the heavier floe pieces, still nearer to the starboard side of the ship; after which another twenty-four hours of tedious uniformity rolled heavily away amidst a dead calm and thick

atmosphere. One novelty indeed there was in those stagnant hours, and that a sufficiently gratifying one, viz. that the temperature remained above the freezing point throughout the night, the lowest having been 33°+. At noon of June 14th it was 54°+, the sky being still overcast and no land in sight. Some lanes of water appeared, but none of any consequence. Within the last few days the upper portion of the ice had undergone a perceptible diminution from increased warmth, but there was still an immense thickness to be dissolved; and one summer, such as this region could be expected to afford, might not suffice for the destruction of so vast and, as it seemed, interminable a body, without the co-operation of some more powerful and speedy influence. The impotence of our own efforts had been already manifested in the attempts in which, although zeal and self-interest had prompted every man to do his utmost, we found ourselves unable to effect more than to level down some of the inequalities of the surface near the stern, or on either side of the ship. Nothing, indeed, favourable could be expected, until the ice should become slack enough to allow the imprisoned under pieces to rise to the surface.

The period had again arrived for examining the crew, who were reported to be in much the

same state, some still continuing lame, and Gibbs, poor fellow, barely able to walk once or twice along the deck by the aid of a stick in one hand, and resting on the bulwark, or whatever else he could grasp for support with the other. Jones also was unable to do any duty, though in a less degree affected, while Barker and Anderson continued to complain of the stiffness of their legs. Smith (my steward) was still suffering, and walked very lame, and two more were temporarily on the sick list. Indeed, the knee or ankle joints of two-thirds on board were more or less affected with shooting pains or twitches, betokening weakness, and few could take even ordinary exercise without sensations of languor and uneasiness. The lowest temperature of this day was 32°+.

The prevalence of the northerly breeze, though moderate, was sufficient to bind the whole of the surrounding ice on the Labrador side, and consequently our change of position, at the most, did not exceed two miles to the south. Some few holes of water were occasionally seen as the ice varied in its movements, but generally speaking it was more packed and forbidding than had of late been customary. Much, however, was expected from a westerly wind, whenever it might come, and in the meantime there was some satisfaction in witnessing

the diminution of the upper ice, which wasted away from one to two inches in the twenty-four hours.

On June 15th not fewer than twenty-six planks of the ship's side could be counted from the fore chains directly down to the ice, and as this had dissolved enough to bring within reach of the carpenters several more streaks, preparations were made to caulk and coat them with coal tar like the rest. It was found, too, that we could, by removing the ice down to the water level, reach the upper part of the damaged stern-post, though this was not to be accomplished without hard labour, since the mere pressure had formed an icy cement so tough and adhesive, that fragments stuck to the planking, even between the narrow breadth of the strokes of the pickaxe. It looked, indeed, as if the ship had been placed in a bed of some plastic composition, which time had indurated into the solidity, and almost the substance, of limestone rock. However, under the direction of Lieutenant Smyth, the men contrived to get below the ten feet mark, and it was then ascertained that the doubling as well as the split stern-post were more twisted from their true positions than when last seen about three months ago. The water in some measure interrupted the proceedings, but with the assistance of the fire engine it was kept

so much under, that the work could be continued, while a second party, co-operating with the former, went on steadily undermining the fore-foot, which has been described as resting upon the surface of the ice. It will be readily understood that the object of these proceedings was to remedy, as effectually and speedily as possible, whatever portion was accessible of the serious injuries which it was probable the keel and lower section of the hull had sustained; and, though nature would in time have effected the same thing without labour of ours, yet it was of moment to be ready for any of those extraordinary changes which, through the disruption of the surrounding ice, would sooner or later launch us into freedom.

Three swans, a flock or two of ducks, and an occasional plover or snipe passed towards the north, while a few loons and two or three kinds of gulls flew round or hovered over the different holes of water. At noon Charles Island was just distinguishable from aloft, and soundings were obtained in forty-six fathoms on a rocky bottom with small pebbles, and a part of some crustaceous animal. This corresponded exactly with the soundings, as given in Captain Lyon's chart, and also those of the Hudson's Bay Company in our possession.

The labour of excavation was carried on with

cheerful alacrity, and by the incessant use of draining machines, in the shape of the engine, boats' pumps, and buckets, we contrived to penetrate as low as the seven feet mark; but the sea water then beginning to ooze through the under ice, rendered abortive any further attempt to keep the space clear. This result, however, had been gained. It was ascertained that the doubling, and a portion of the stern-post below, projected over to the larboard side several feet; and that another portion, from the ten feet six mark to seven feet five, was incapable of repair. It was, consequently cut away. The night passed tranquilly, and a flock or two of geese flew past towards the north. No change transpired among the ice until early in the morning of June 16th, the anniversary of our sailing from the Nore, when it began to slacken round the heavy ice which we were partly entrenched in and partly upon. The weather, too, cleared, for the wind came lightly from the south, and the distinctness of the blue land (the snow being now gone) of Charles Island, was a convincing proof that we had been drifted a few miles in that direction. Still there was not the faintest indication or promise of an open space; for, let the eye roam where it would, there was one wide glare of dazzling white but too familiar to our senses.

It is not a little remarkable to reflect on the

various ineffectual attempts that have been made by different commanders in modern days, to fill up the small blank on the northern charts, between the bottom or south part of Regent's Inlet and Point Turnagain. Parry's and Franklin's achievements are too well known to require observation or eulogium from me; yet the former could not penetrate through Fury and Hecla Strait, and the latter found it impracticable, from the damaged condition of his canoes, the want of provision, and the advanced state of the season, to proceed beyond Point Turnagain. Of Sir John Ross's eventful expedition all have heard. My own, in search of him, is also before the public. Captain Lyon, in trying to reach Repulse Bay by the Welcome, was baffled by a succession of bad weather and heavy gales; and now again, I, acting upon the united experience of most of the distinguished names just mentioned, under circumstances considered favourable, after getting nearly within sight of my port, am stopped by drift ice, at what is generally the very best period for navigating the Polar Seas — am frozen fast, in October 1836, at the entrance of Frozen Strait—and now, June 16th, am carried into Hudson's Strait, on some of the very same ice that originally begirt the ship, without having had it once in my power either to advance or retreat. In

short, from north, south, east, and west, the attempt has been made, and in all equally without effect; and yet, with a tolerably open season, the whole affair is within the accomplishment of six months.

The crew were variously employed, but principally in removing the ice from under the fore-foot, the bend of which was literally above the level of the sea, now ascertained by the bursting up of the water from beneath; on the other hand, the stern-post was immersed or imbedded a little more than nine feet. The officers also had their occupations: some of the keener sportsmen lurked for the chance of a shot; others were speculating on the possibility of coaxing the ship's peas to germinate in a heterogeneous composition of coal dust. A fishing line, too, was set, but the most persevering had not been rewarded even by a nibble. My aim was to encourage every thing that could relieve the mind by abstracting it from a too fixed attention to our situation; and as there were no complaints, it is fair to presume that the end was in a great measure attained. Though the temperature at noon was 46°+, and with a blackened bulb thermometer 66° in the sun, yet it had been as low as 29°+ in the night, and consequently the fresh and brackish pools were once more coated with

ice. Little transpired throughout the night, but on June 17th the wind veered to the N.W., and the ice began to open out all round, exposing by noon considerably more water than had yet been seen. A fog soon rose from it, which so completely darkened the sky that we neither saw land nor got observations, and were consequently ignorant whether we were drifting down the Straits or not. The ship appeared to have risen bodily up one inch during the twenty-four hours; but this of course was attributable to the thawing of the ice on the surface. A small fish was found in the mouth of a gull (boatswain), and more ducks and geese flew towards the north. By 4^h P. M. the ice was again cemented, and subsequently Charles Island was seen, the position indicating that we had been set a short distance to the south and east. Dark patches of sky created by the vapour from open water appeared all round the horizon, except towards the main land, in the direction of which were some extensive floes of a remarkably even surface. One or two, of minor dimensions, could be just descried to the eastward; and as a conclusive proof that there was something more than a mere opening and shutting in of the ice by the action of successive tides, several pieces of broken and discoloured mounds, quite new to us, were swept near and

ultimately past the ship. The temperature sank to 30°+ in the night, and the pools of fresh water froze over. Much small snow also fell without intermission up to noon of June 18th, with a temperature of 43°+. The ice again moved about with great irregularity, flattering us one hour by its loose and disconnected aspect, and annoying us the next by resuming its compactness. Yet these transitions, unsatisfactory as they were, betokened an activity of some sort towards the entrance of the Straits, which might therefore be clearing so as to allow the western ice to drift down. The haziness of the weather concealed the land, but the latitude made us still farther south.

In the afternoon soundings were obtained in eighty-five fathoms, on a rocky bottom. The ice opened out towards night, and a solitary walrus showed its huge frame above water but made no long stay. About midnight, and on June 19th, the wind blew from the E.S.E., and, increasing to a gale, speedily set the ice in motion all round us. Occasionally, streams of drift-pieces drove, at the rate of two miles an hour, against the corners or edges of our heavy floe-ruins; and though without any perceptible shock or injury at the time, yet, as it afterwards appeared, with effective force, since, at 11^{h} A. M., a large strip silently separated itself from our

general mass. It was then that numerous lanes and holes of water ranged themselves in a line exactly across the direction of the wind, almost up and down the Straits; and the land becoming visible during a partial cessation of sleet, snow, and rain, with which we had been refreshed, the ice-mate, Mr. Green, imagined he could make out several conical tents, from whose tops smoke, as he thought, issued. Unfortunately, dark clouds soon obscured that part of the land, which seemed like an island, depriving us, for the present, of the satisfaction which the realization of this idea would have afforded. On inspecting the hull, as was customary, it was discovered that one of the copper bolts, situated in the eleventh plank below the fore part of the main chains, on the larboard side, had started, and projected one-eighth of an inch outside the doubling; a circumstance that made it necessary to cut beneath the head and clinch it afresh. Again, while employed in clearing out the fore part of the bread-room, for the purpose of getting at coals and provisions, just below the broken stringer on the starboard side, one of the through bolts of the lining was found to have started, and, from the mere collapsing of the after part of the ship, one of the casks had been actually pressed to such a degree, as to stick into the lining. Prudence, therefore, required that the stowage should not

be disturbed until we were afloat, for the ship still inclined over as before, and it might be that, at intervals, a strain was thrown on that particular part.

The east end of Charles Island bore S.W., and the weather was dark and gloomy, with a temperature of 31° +. The ice, this afternoon, was more detached and open than it had been during the season; and had the ship been freed of her bonds, there was space enough to have moved two or three miles to the westward. But, as it was uncertain when that consummation so devoutly wished would take place, or what might be her state when afloat, as it was possible that she might be near the land, or in a situation requiring to be immediately worked, I thought it right to make such preparations for steering her, as the urgency of the occasion might demand. From what had been already seen, there were reasons for apprehending an insuperable difficulty in shipping the rudder; and, indeed, if, as was conjectured, the split stern-post projected three or four feet at right angles to the keel, to say nothing of the doubling forced up, it seemed evident, that even if the old rudder could by any management be fixed in its place, it would serve only for an additional purchase to weaken the already broken parts thereabouts. To provide against a contingency so serious as well as proba-

ble, it was requisite to devise a rudder of an entirely different construction, yet so contrived as to lose little of its power, and such a one was ingeniously hit upon by Lieutenant Smyth. It was effected by the simple operation of transposing the wood, forming the lower part or heel of the rudder, to that forming the upper part, thus giving to it when finished an oblong form, not much unlike that used by a Thames barge rigged with sails, and at the same time the desirable property that it could be hung on the strongest part of the stern-post. Having a spare rudder on board, which had fortunately been put together in pieces for the convenience of stowage, as it was divided into two portions, an upper and lower, just where the division was wanted, the thing was half done to our hand*, some iron work and a few fittings for putting it together being all that was required. Throughout the night the ice kept opening and closing, and the temperature sank to 30° +. In the early part of June 20th, however, it became very slack to the westward, especially along the shore of Charles Island, to which we were much nearer. The Strait, nevertheless, was completely blocked to the north and east, though the ice, at least that near us, was certainly drifting slowly down towards the

* The rudder had been made in this way to provide against accidents.

entrance. We now began to cut through the mounds at the edge of the floe pieces, and to open a communication with the visible parts of those cracks extending diagonally from one extreme to the other, and in one instance crossing the ship's bows; for as it was mere speculation how deep or tortuous these flaws might be beneath the surface, it was at all events an equal chance whether our operations might not accelerate their rupture.

Some snow had fallen which was succeeded by a south-west wind, and at noon thick weather came on that hid the land. The temperature was only 35° +. The wind became variable, coming sometimes in fresh gusts accompanied by snow and rain: partly from this cause and partly from the tide, there was a more than common stir among the ice, which now separated itself into detached streams and single pieces, exposing a checquered surface of water to the westward, most cheering to the eye. During the night the ice was, what the Greenland sailors term, running about; and, though firmly connected pieces of various dimensions, from one to three or four hundred feet in diameter, struck our floe with considerable violence in passing by, yet such was its solidity and weight that the effect was merely to grind away insignificant points along the edges.

June 21st came in with snow and a temperature of 30°+. At 5h A. M., all hands were employed in trenching through the mounds, and cutting as low into the water as they could. Saws unfortunately were altogether useless, on account of the thickness of the ice, which being measured with a line, as far down as a projecting tongue, was found to be thirty-three feet, and was conjectured to be, in the whole, between forty and fifty at that particular place. Some large calves rose up from beneath the starboard floe piece, which indeed was the most vulnerable, and we now marked out a line of work at three different places, which were ultimately to be connected, so as to form an upper channel of communication with the sea. I would willingly have trenched down and cleared away the frozen snow, which adhered so tenaciously to the after part of the ship, but for the impracticability of shoring her up, and the risk that must have attended the disturbance of the shores on the parting of the floe; all that could be done, therefore, was to conduct a channel of water within a few feet of the starboard side, to which she inclined, in the hope that a severance might be effected by some sudden jerk through the entire depth below. By noon, we were rather nearer to the east end of Charles Island, which was quite bare of snow, except in fissures and ledges. The

temperature was only 40°+, the weather calm but hazy with snow, the barometer 29. 51. Much ice drifted past and as far as the ship in the afternoon, among which, were several perfectly even floes of six to seven hundred yards long, of a pale blue colour, and evidently of last winter's formation; while, contrasting with these, were others more soiled and channeled, that had apparently strayed from the northern lands at the head of Fox's Channel, bearing on their shoulders the ruins of other floes which had been broken and borne over them in the convulsions of those extraordinary eddies. These did not remain; for in the early morning, a little after the close of the longest day, with the last rays of which the sky was yet tinted, they swept by, leaving us as usual fixed in our unyielding bed. There was a dead calm, and even on the day of the summer solstice, the temperature sank to 27°+. The crew, under the immediate direction of the first Lieutenant, were set to work at 5^h A. M., and performed the novel duty with good humour and perseverance. By noon we had been drifted to the eastward, the latitude being 62° 54′ 50″, and longitude 74° 40′ 30″.

The character of the shore was comparatively low, even, and rocky, about the eastern extremity, but farther west, was more hilly, and if not composed of more than one island must possess some

very deep bays. The last twenty-four hours, the leak had increased twelve inches. By a sudden change, the weather had become sultry, the thermometer in the sun being 62°. A very few birds, but not a fish or animal was seen. The ice merely opened and closed with the flood and ebb tide, without further effect.

On June 23d, the crew were employed in cutting away the outer mound on the starboard side of the ship, and made such rapid progress in their early labour, that the edge of the floe rose two feet six inches out of the water, and this was immediately followed by the appearance of a transverse crack between them and the ship. At $10^h\ 15^m$ A. M., while steadily occupied at their work, the disconnected body of ice was observed to run with considerable velocity past the stern of the ship, directly towards the part they were reducing, and an enormous piece coming in sudden contact with a projecting point, that had been purposely formed by cutting away the ice about it in the morning, the whole mass broke off with the concussion, and rolled partly over in consequence probably of the upshooting of several immense calves from underneath it and the floe. At the very moment of disruption a number of men were working on the separated piece, the rocking of which placed them for the time in a perilous situation. From this, however, they

were promptly rescued by launching the dingy to their assistance, though not soon enough to save all the pickaxes, shovels, handspikes, &c., some of which were lost. This circumstance made a great difference both in the magnitude and compactness of our island floe, and encouraged a hope of getting the ship afloat earlier than had been expected; still this was a consummation which at the present juncture was hardly to be wished, as it would have been impossible to prevent the running ice from striking, or the heavier bodies from nipping her; either of which, strained and shaken as she was, it was obviously desirable to avoid. The motion of the ice on this occasion was singular, being rotatory, as if influenced by an eddy, as indeed was not unlikely to be the case about the eastern end of an island, having only a narrow passage between it and the main, so far as could be distinguished from the deck. The temperature varied from 30° to 47°+, and in the sun was 73°+. The ice moved backwards and forwards as usual, but towards the close of the day was more wedged than customarily. However, at 4^{h} A. M., 24th June, there were many lanes of water to the eastward, without a single one in the opposite quarter. Fresh water ran off our floe in streams during the warmth of the day; and, what with those and cutting away more ice on the starboard quarter, it was found by the

marks on the stern-post that the entire mass, composing that part of the floe, had risen three inches. In the forenoon the ship was set to the eastward, and had certainly drawn nearer to the land, especially the eastern end of Charles Island, which was not more than five or six miles away. The other land, appearing at first continuous with the latter island, was now ascertained to be the dark and forbidding coast of Labrador.

It is worth mentioning that even in calms we were evidently set to the southward and eastward, but more particularly to the former, owing, probably, to the set of the current through Fox's Channel and between the islands, which would strike somewhere on the main shore before turning directly towards the Atlantic. There was no other change during the night than what was occasioned by the tides; and on June 25th, the weather was too overcast and misty to allow our position to be ascertained. At $11^h 30^m$ soundings were struck in one hundred and eighteen fathoms, and the bottom was composed of mud and shells. It might be that the heavier ice, by which, I mean that formed in the winter, had drifted out of the Strait, as the lighter pieces which now surrounded us seemed to be the recent production of the spring, being mostly even and of but a few feet thickness, tinged with blue instead of the brownish green

and yellow of the older formation. Three or four pieces had been lifted on the edge of our floe, in consequence, of course, of some unseen pressure. It was thought, too, that the ship was a little more upright. The land was only dimly visible once or twice, for the day was overcast and gloomy, and towards evening settled into rain, which poured incessantly the whole night. Soundings were found in eighty-six fathoms. In consequence of the prevailing easterly wind the ice continued remarkably close, slackening, however, occasionally near the ship. Nothing, indeed, could have been done even had she been afloat, except to ascertain with some precision, as I was very desirous of doing, the extent of our damage.

For this purpose, on June 26th, the crew were again employed in removing the mounds, while the carpenters were occupied about the fore-foot, which, owing to the rising of the ice, was now sufficiently exposed to allow of the broken and damaged part being examined with more exactness. It had been ground away by the action of the ice, but the stem was uninjured, and we began immediately to cut away the ragged parts, with a view of substituting more solid pieces in their stead, and finally covering the whole with iron sheathing, taken from the upper works of the bows, where ex-

perience had taught us it was not likely to be of service. At noon the weather was still dark, and the land invisible. A continuation of the same gloomy atmosphere prevailed, and immense floes of spring ice, not exceeding in thickness three feet, and black with water on the surface, crowded round our still solid island from different points, but chiefly from the main or Labrador coast, which happened to be the windward shore. Many of these, driven forward by wind and tide, struck against us with considerable violence, but without splintering a fragment from our rock-like mass. In the evening soundings were got in one hundred and twelve fathoms (sand). All night the ice remained very close, the wind being fresh from the eastward; and in the morning of June 27th all hands recommenced their labour on the larboard mound, which unlike some of its neighbours was one body of solid blue ice, and though causing more hard work, yet began sensibly to diminish before the exertions of the crew. But few birds flew past, though some narwhales were seen playing about, to the great relief of the ice-mate, who, having been engaged in the Davis Straits' fishery the greater part of his life, had been almost inconsolable at the paucity of 'living creatures,' as he termed them. His joy, therefore, on this occasion, was commensurate; and having in-

tently watched their gambols to the moment of disappearance, he descended from the crow's-nest, and with evident signs of pleasure proceeded to give me a minute account of their size, colour, and length of horn. By observation at noon, it was found we were eight miles north of the last latitude, and by the view of the land which was quite clear, it was equally evident the ship had been set rather east than west, though the wind blew, and had been blowing fresh from the former quarter of the compass. It follows, therefore, that the northern ice must have so completely blocked up the channels we had passed, as to prevent any thing like a retrograde action. The temperature varied from 34° + to 39° +, and the barometer was 30·01. Wind east.

The men were examined to-day by the medical officers, and reported to be free from actual complaint, with the exception of the few individuals mentioned before, some of whom were rather worse. At this time, in an official letter addressed to Doctor Donovan, I demanded his opinion of the probable consequences if the ship were detained another winter in these regions. His answer was, that it would be fatal to many of the officers and men, some of whom were even now in a precarious state; and he also reported that the most useful medicines for the prevalent disease were expended. The good effect of the labour of

the crew in throwing the weight of ice off the floe, was made manifest by the fact of the ship's having risen two inches, her immersion in the water and ice aft being 8 feet 10 inches. In the evening the ice was close, but much to our satisfaction a large piece was separated from the larboard side of the floe; and, after midnight of June 28th, the wind then blowing fresh in squalls from the south-east, a sudden disruption took place one hundred and fifty yards ahead of the ship, and split the floe right across. We therefore returned to our task with fresh spirits; and, as a matter of experiment, fired a couple of six-pounder shot at a mound, but without the results expected, as instead of splintering and throwing it down, the shot merely cracked it, and buried themselves deep in the substance without doing further injury. One of the shot was next day recovered from the mound. It had been discharged at the distance of twenty-one yards, with a charge of 16 ounces of powder, and had penetrated one yard and a half, splitting the mass in various directions. The land was seen once, and at noon we had drifted eight miles to the north, being nearly in midchannel; but the whole body of the ice was very close, infinitely too much so for any vessel to have made way. The temperature varied from 30° to 36°+; and ice was formed on all the fresh water pools

during the night. Barometer 29.95. A few holes, some distance apart, showed themselves in the evening, but, on the whole, the ice was extremely close. The carpenters completed and had made a good job of the fore-foot, which was well secured with three plates of iron.

June 29th. Land was faintly seen from S. S. E. to S. W.; the work went on as usual. At noon the south-east wind had drifted us a little to the west, the ice being very close and no land in sight. Temperature from 32° to 36° +. Nothing transpired to alter our condition, for the wind with singular constancy kept to its old point of south-east, and consequently wedged the ice closer than ever; nevertheless all opportunities were seized to do whatever might accelerate our release from this icy cradle, and the carpenters were again busied in caulking the butt ends of the planking, as they came day by day within reach.

On June 30th, four white whales appeared in a small hole of water near the ship, and occasionally a seal popped up its head. The laborious work upon the mounds went on cheerily, and though some of the men began to be affected with inflamed eyes, they did not on that account shrink from their duty. They had all along worn each a small screen of green veil; but finding that this did not effectually answer the purpose, they

contrived to make goggles with crape over the ends, instead of glass, with other devices not without ingenuity. The most distressing event, however, was another instance of a relapse, in the person of Mr. Mould the assistant surgeon, who was very lame and altogether far from well. Gibbs, too, could not but be considered in an extremely precarious state, and his limbs, poor fellow, were dreadfully shrunk, and so weak, that he could not walk the length of the lower deck without assistance. In clearing away the ice from the fractured parts of the stern-post, a piece of its doubling two feet six inches in length, extending from the four feet six inches mark to the seven feet, and consequently under water, was brought up by the carpenters, who further ascertained that the outer stern-post had been forced aft, and at the eight feet eight inches mark it had opened from the wooden ends one inch and a quarter. The night brought no change, and on July 1st the work was continued as before, but so cold had it been, that not only was ice formed on the fresh pools, but young ice was seen even round the edge of the floe on the sea water; a strange phenomenon in the middle of summer, and not very auspicious for our hopes; and, indeed an open passage could now hardly be expected, if we were to judge from what surrounded us, for the entire body of ice was not only closely

wedged, but was more to the westward, more packed, and altogether more unfavourable to the prospect of a speedy release than a month before. In fact, all depended on the direction of the wind, as must ever be the case in the navigation of these seas. Unless that be favourable for driving out to sea the western packs of heavy ice, all human efforts must be vain. Land was once made out, bearing S.S.W., and the weather was dull and cold, the temperature having got to 30°+. The new moon brought us a north-east breeze, with a dark gloomy sky and abundance of rain, which did not cease throughout the night. One or two small calves started up from between the cracks alongside, and on July 2d the ice began to open out a little, having a limited space to move in towards the main land to leeward. The temperature varied only from 32° to 33°+. No variation of any sort intervened to relieve the dull aspect of affairs, but July 3d at least brought us what we had not experienced for a fortnight—a fine day. We now discovered one part of the floe, on the starboard beam, less thick than the part at which we had been working; and the men having got the ice-saw to work, and singing to time as they lifted it up and let it down, made such progress, that in the course of the forenoon, though the general thickness averaged from twelve to four-

teen feet, they got through thirty feet; whilst, on the other side of the ship, another party was busy in clearing away the ice from the crack leading athwart the forefoot to the extremity of the floe in that direction. In the meantime the ship remained precisely in the same position. The observations made us a few miles to the north and west, the latitude being 63° 17′ N., and longitude 74° 39′ W. Finding the ice became thicker as the work approached the ship, it was necessary to have a longer saw; accordingly, the armourer, by means of the forge, formed two into one, thirty feet long, which, however, from its comparative thinness, we were apprehensive would not be strong enough. No change took place throughout the night, but the ice remained so packed, that, had the season been farther advanced, the whole would most certainly have been connected into one immense body. As it was, the temperature did not sink below freezing point, though it arrived at it, as indeed it had done for some time, within a degree or two.

On July 4th the large saw was put into motion, and answered remarkably well, its own weight being sufficient to carry it down without any other incumbrance. With it, therefore, we made better progress, though the ice was often as much as twenty feet thick, and by noon, had cut to a main crack, the least pressure against

which, it was hoped, would carry away the piece altogether. The wind having veered to N.N.E., made the ice a little more slack, though it remained still perfectly fixed. Having sawed as far as we could, the next step was to extricate the saw itself, in attempting which, having been accidentally broken in two, it was again repaired by our industrious and zealous armourer, who never seemed more delighted than when he had plenty of work on his hands. We now made a fresh survey of the ice directly astern of the ship; and, finding that some places were much thinner than others, we forthwith commenced digging and sinking a trench, from the edge of the floe towards, and in a line with, the keel, preparatory to trying what might be effected with the long saw. The rest of the afternoon was employed by the carpenters putting in two screw ring-bolts, about three feet from, and on a level with, the eleven feet mark, according to a plan by the carpenter, Mr. Smith, for securing the wooden ends and injured parts of the ship's dead wood. This consisted in simply passing the stream chain under the heel of the stern-post, through both ring-bolts, and securing it firmly on deck abaft, the object being to prevent any further damage thereabouts, either from the ice or sea.

On July 5th, land, which proved to be Salisbury Island, was distinctly seen at N.W. by N.,

and some water could be made out from the mast-head, between south and west, but the ice near us was so close, that there would have been little difficulty in walking five or six miles in any direction. Indeed, it could not be otherwise with these never-ending easterly winds. As early as 4^h A. M. the crew were working the long saw astern, and by noon had cut through twenty-five feet, or more, of sixteen-feet ice. On all these occasions the first lieutenant never quitted them, early or late, frequently putting his hand to the ropes himself, as did some of the mates and warrant officers; and it is but justice to say, that nothing could exceed the cheerfulness and order in which this laborious daily toil was encountered. The strictest regulations were observed respecting the changing of boots and stockings, &c., each time the men came on board, and again on returning to work, so that there were no complaints or illness of any kind from the constant exposure. Boards and planking were provided for them to stand upon, and a weak mixture of lime-juice was issued, at stated intervals, to counteract any ill effect that might arise from too copious a use of cold water. New ice was nightly formed on all the pools, and sometimes at the edges of the salt water, though, according to the thermometer, the temperature

had only varied from 33° to 34°+, the excess having been 40°+ in the southern exposure. Notwithstanding the compactness of the ice, the ship was this afternoon whirled round several times; and some calves becoming entangled with our floe near the part where the people were sawing, so impeded them, that the utmost achieved was only five feet.

Early on July 6th the work was renewed; but from having cut in too slanting a direction, little was then accomplished: nevertheless, such was their energy, that by noon fifty-three feet altogether were completed, through a thickness of twenty-six feet. Other parties were not behind in their endeavours, and three good sized calves were extricated from underneath heavier pieces, whilst another was heard by the first Lieutenant and myself grinding its passage out towards the edge of the floe. The entire body of the ice continued close as before, and Salisbury Island bore about W. by N., the latitude being 63° 20′ N., longitude 75° 25′ W. Nothing could exceed the gloominess of the weather; and though from the rain that fell it might have been expected to clear, there was no improvement, and neither wind nor ice seemed disposed to change. On July 7th some rumbling noises were heard by the officer of the watch, the precise cause of

which he was prevented by the fog from ascertaining. The crew assembled at the customary hour, and renewed their labour cheerily, though some were obliged to stand in the water which covered that part of the ice, in order to guide the saw. Fearing the consequences of this unavoidable exposure, I took care that they were often relieved, and an extra allowance of oatmeal, with a small quantity of spirits, was issued. Pieces of ice of various dimensions were either disentangled, or started up of their own accord, from between the broad crack athwart the bow and on both sides of the ship; and as a further encouragement to us, we saw for the first time an entirely new rent through a thick part of the floe, which opened into the line of work made with the saw. By noon another space of twenty-five feet had been cut through, although a depth of from twenty-four to thirty feet of tough solid ice had to be penetrated at every motion of the saw; and on examining the marks on the stern-post, it was seen that the ship's draught was 8 feet 9¾ inches, and that she had settled down 5¼ inches. The general body of ice continued deplorably close, while the temperature ranged between 32° and 43°+; the wind at east, and the barometer 29·94. A single seal was seen, the only one for many days.

July 8th. It was found by the marks on the stern-post, &c. that the ship had sunk three quarters

of an inch forward, and risen half an inch abaft. The crew were early at their work, and felt the comfort of the extra allowance. The ice maintained a similar thickness, and by noon another twenty-two feet were gained, which made altogether one hundred feet since the commencement; in fact, they were now approaching the stern, and at intervals they heard loud cracks close to them, as if something were yielding underneath. Considering that the event might take place at a moment when least looked for, to the great danger of the people, I ordered ladders and ropes, to be hung from the stern within their reach, to which, if requisite, they might cling. They however seemed quite indifferent about the matter, and sang and worked as merrily as if they had been on terra firma. Easterly winds still prevailed, as did the gloomy sky; but though the land was often obscured, yet once the Labrador coast appeared bearing from S. W. to S. W. by W., and Salisbury Island from N. W. by W. to N. W. by N., making us much about the same spot where we had been a month ago. The ice was impenetrably close. At midnight there was what seemed to be a dark water sky to the southward, along the coast, or it might be only the clouds, which were frequently seen hanging over the skirts of the land.

On July 9th the fineness of the day tempted us to set up the rigging, and forego what we never

did omit except on urgent occasions, the observance of divine service; but a fine day was so uncommon, that we were glad to take advantage of it under any circumstances. The ice continued as close as ever, there being only one small hole of water near the ship. Here some narwhales came to breathe; and, as their timidity is extreme, they would scarcely have ventured so near, had there been any other place for the purpose. At noon Salisbury Island was in sight from the deck, much in the same bearing as before. The latter part of the day was employed in erecting with the spare topmasts a pair of sheers, to transport the temporary rudder aft, and get it over the ship's side, in case the original one could not be brought into use when the ship floated. At midnight the ice round us was slightly in motion but still kept close.

July 10th. Water was discovered about six miles off, from S. W. to S. E., along the Labrador coast, and at noon Salisbury Island bore W. N. W. The people resumed their sawing in the early morning; and, although from the hardness of the ice, they did not make their usual progress, yet they kept hard at work, in the hope of reaching the stern-post in another twenty-four hours. Not far from them, others were cutting a new trench at right angles to the ship, where it was intended to saw, in order, if possible, to disunite some of the ice

on which we were partly borne up. Already, indeed, it was so split by cracks, and our own exertions, that it seemed almost certain that the first commotion, when the whole body should begin to drift, would release us. The wind having blown from the east twenty-two days, at last veered to west; the weather became fine; and the temperature veered from 32°+ to 46°+.

The following statement of the drift of the ship, whilst beset in the ice, between the 1st of January and the 30th of June 1837, was drawn up by Mr. Saunders (acting Master).

	Course.	Distance.
Between 1st Jan. and 1st Feb.	S. 23° 4′ E.	6 Miles.
„ 1st Feb. & 1st March.	S. 38° 12′ E.	36 „
„ 1st Mar. & 2d April	S. 62° 15′ E.	29 „
„ 2d April & 1st May	S. 69° 59′ E.	46 „
„ 1st May & 30th May	S. 60° 00′ E.	70 „
„ 30th May & 30th June	S. 87° 35′ E.	47 „

	Latitude observed.	Longitude observed.
January 1st,	64° 51′ 00″ N.	82° 25′ 00″ W.
February 1st,	64° 45′ 00″ N.	82° 19′ 00″ W.
March 1st,	64° 16′ 00″ N.	81° 26′ 00″ W.
April 2d,	64° 05′ 00″ N.	80° 37′ 30″ W.
May 1st,	63° 49′ 00″ N.	78° 54′ 30″ W.
May 30th,	63° 14′ 00″ N.	76° 38′ 45″ W.
June 30th,	63° 12′ 00″ N.	74° 54′ 00″ W.

Thus it appears that the aggregate drift for six months only amounted two hundred and thirty-four miles.

Some more narwhales appeared again in a hole close by, and a seal drew itself on the ice,

no doubt to have a quiet lounge in the sunshine. This, however, the keenness of our sportsmen would not permit; and though they failed in their benevolent intentions, they effectually frightened the visitors away.

The light air from the westward had been so far beneficial as to loosen the ice, which was tranquil or in motion according to the tide, and whilst in motion several calves rose up from about and under the fore-foot. Early on July 11th Salisbury Island bore W.N.W. seven or eight leagues distant. The ice now acquired a more rapid drift; and an old floe piece, having been driven against us, forced up some light ice by its pressure, but without breaking a morsel of our impregnable rock. The crew had resumed their customary labour; and, as they drew nearer to the stern-post, various noises and crackings beneath them plainly hinted that something more than usual was in progress. After breakfast I visited them, and the other parties, who were busy extricating calves and cutting a trench, as previously stated. Scarcely had I taken a few turns on deck and descended to my cabin, when a loud rumbling notified that the ship had broken her icy bonds and was sliding gently down into her own element. I ran instantly on deck, and joined in the cheers of the officers and men, who, dispersed on different pieces

of ice, took this significant method of expressing their feelings. It was a sight not to be forgotten. Standing on the tafrail, I saw the dark bubbling water below, and enormous masses of ice gently vibrating and springing to the surface; the first Lieutenant was just climbing over the stern, while other groups were standing apart, separated by this new gulf; and the spars, together with working implements, were resting half in the water, half on the ice, whilst the saw, the instrument whereby this sudden effect had been produced, was bent double, and in that position forcibly detained by the body it had severed.

I was then informed that having cut to within four feet of the stern-post, they had ceased for a few minutes, to refresh themselves, when the disruption took place, barely giving them time to clamber up as they could for safety; whilst in the midst of all this bustle the first Lieutenant, finding himself raised up by the ice on which he stood to the highest step of one of the stern ladders, was seen composedly mounting it to come on board. Nor were the other parties less fortunate in escaping accidents; so that our joy on the occasion was not saddened by any serious misfortune. We soon found that the ship had only sunk down to the ten feet seven inches and a quarter mark forward, and to the eleven feet nine

inches aft, having a heel of about two streaks over to port. The first thing was to sound the well, the water in which increased four inches in a quarter of an hour; and, supposing that this might be attributable to the change of the ship's plane, whereby the water which had been lodged astern was allowed to come forward, it produced for the moment but little uneasiness. I soon however perceived that not only the offensive odour of the well water was gone, but that what there was, was equally salt with the sea water alongside.

As the ship rested almost entirely on the starboard bilge, we naturally hoped that the first twirl of tide would set her fully at liberty; and in this hope the top-gallant masts were fidded, the yards crossed, and every thing put in readiness to make sail. At noon the ice was still close except immediately round the ship. Meantime an increased quantity of water found its way into the well, which in four hours, notwithstanding the constant use of one pump, had filled to the depth of nineteen inches. Subsequently, we gained two inches on the leak, which thenceforth kept pretty steady at ten or twelve inches. Below this, without the use of other means, it could not be reduced. The ponderous bodies that had hemmed us round for nine months and more, the objects of our terror, and yet perhaps the appointed means of safety, were now seen

floating away, dark and discoloured, among the fresh and unspotted ice. We were now able to see clearly that the stern-post was sadly shattered; entirely broken from the starboard side, and projecting fully three feet and a half over to port. What other injury there might be we could not yet divine, as the keel and lower part of the hull were firmly imbedded in solid ice on both sides, though chiefly on the starboard, where a heavy fragment of the old floe still adhered. Imagining that additional weight in the ship might assist in breaking the under ice away, we hauled alongside of a small floe, where there was a pool of fresh water, and having got the engine to work with a long hose, shortly completed our water to nineteen tons. But finding this without the effect desired, all sail was set; and then, after bracing the yards in the most advantageous manner for our purpose, the officers and men sallied alternately from the one to the other side, and then fore and aft, still however without effect; for although this shook the ship it shook the ice also, and the two, forming one connected body, merely undulated slightly together. Sail, however, was kept set; and with our extraordinary appendage, we drifted gently wherever the wind, which happened to be fair, listed to take us. Our motion did not exceed a quarter of a mile an hour; and, notwithstanding

that detached pieces of greater or less dimensions were frequently encountered, they did little else than produce some deviation in the line of drift. Much water opened in sight to the southward and to the south-west. but the breeze was W.N.W., and we were driven about S.S.E. Throughout the night the pump was incessantly going, by which means, though the water at one time gained upon us, we were enabled generally to keep even with the leak, though not to reduce it.

July 12th. - The wind continuing light, studding sails and royals were set, the ship drifting as before. Some shores were placed under the fore chains, in the hope that they might assist to lift the ship off; but I was apprehensive that a strong purchase might have the effect of tearing away any fractured or splintered parts that should happen to be imbedded in the ice. Indeed, it was evident that great caution was required in the endeavour to release her entirely from her icy coating, as well on account of the damage which was already known, as of the further injuries that might have been sustained along the keel, which we were in no condition at that time to ascertain. It was, therefore, determined to have recourse again to the saw, which was forthwith put into order by our able armourer, the whole of the crew that could be spared from the pumps being, in the meantime,

employed in throwing off the surface of two of the three or four solid hummocks which yet remained alongside, while others of the same party cut a trench at right angles to the ship's beam, preparatory to using the saw. At noon there were some narwhales near, and flocks of loons flew past; but there were few or no gulls. Owing to the haziness of the weather no land was in sight.

As I now hoped that a few days at most would yield the Terror to my own control, it became necessary for me to decide as to the possibility of accomplishing the original purpose of the expedition; and, although the altered state of the health of almost all on board made the prospect less favourable than it had been ten months ago, yet I had not, until recently, entertained a doubt of executing in part, if not entirely, the mission on which I had been despatched. It cannot, however, be denied that the loss of three valuable men, the entire disability of four or five others, the symptoms of disease lingering in many more — to say nothing of some of the officers who were visibly effected — had, together with Dr. Donovan's letter on the subject, already given me great uneasiness; and now that the known damage of the ship proved to be far beyond what I had anticipated, or rather had hoped against hope; this, with her leakage, and other injuries, apprehended though not known, forced me to contemplate the possibility of a different

conclusion. Unwilling, however, to admit a thought so destructive of all my fondly-cherished hopes and wishes, I demanded the written opinion of the three Lieutenants and Master. These, in separate communications, and for various reasons, decided that nothing was left but to get the ship to England without delay; and my own sense of duty finally concurring in this opinion, the resolution was most reluctantly adopted.

In the afternoon we got the saw to work, and by 5^h P. M. had cut to within a few feet of the ship's side, when, the ice being closer ahead, sail was reduced. We then drifted alongside of a floe, round a point of which we contrived to pass about midnight, and saw much open water to the south-east.

July 13th. Though there was ice in every direction, we continued to drift about a quarter of a mile an hour. Some small calves found their way from beneath our clog, and it was with great satisfaction that we contemplated the increased breadth of the saw line — a satisfaction not lessened by the discovery that the ship had settled more down, her draught now being abaft thirteen feet eight inches, and forward twelve feet eight. Neither, with the incessant working of one pump, had the water accumulated in the well beyond eleven inches. At 9^h A.M. there was a moderate breeze from the westward with

a thin mist, and, to our unaccustomed eyes a sight almost marvellous, a gentle swell on an apparently unbroken surface. It was thought the agitation, slight as it was, might crack or break the ice alongside; but as it proved otherwise, two warps fixed to ice anchors, and leading to either extremity of the ship, were firmly attached at a favourable angle for separating and entirely disuniting the entire mass; however, while we were in the act of heaving a powerful strain on the warps, it suddenly split diagonally from a hummocky point about fifteen paces from the starboard bow, along its outer edge, to somewhere near the after part of the main chains. The detached portion, on which were two men, (a third being in the dingy, close to them), was instantaneously splintered into three pieces, two of which, singularly enough, were separately occupied by the persons just mentioned, who, standing steadily on the whirling and heaving ice, thus violently discarded, gave a hearty cheer, while their companion, having lost his balance from the sudden jerking of the dingy, lay stretched at full length, and grasping the gunwhale on each side. The cheering however was turned to astonishment, as they watched the ship slowly rising and heeling over to port. We on board had been surprised that no counter action occurred, and were beginning to wonder that the

vessel did not recover her equilibrium, but were now startled by the conviction that she was gradually going over; and the great inclination rendering it impossible to stand on deck, every one clung on to windward as he best could. Then it was we beheld the strange and appalling spectacle of what may be fitly termed a submerged berg, fixed low down with one end to the ship's side, while the other, with the purchase of a long lever, advantageously placed at a right angle with the keel, was slowly rising towards the surface. Meanwhile, those who happened to be below, finding every thing falling, rushed or clambered on deck, where they saw the ship on her beam-ends, with the lee boats touching the water, and felt that a few moments only trembled between them and eternity. Yet in that awful crisis there was no confusion; the sails were clewed up and lowered; fresh men from former crews were stationed in the boats, which again were rather unhooked than lowered; the barge was hoisted out; and with a promptitude and presence of mind which I shall ever remember with admiration, the whole five were provisioned and filled with arms, ammunition, and clothing, and veered astern clear of danger. The pumps were never quitted, and though expecting that the ship might capsize, yet the question of "Does the leak gain on us?" was

asked, and when answered in the negative, there was still a manifestation of hope. Our fate, however, yet hung in suspense, for not in the smallest degree did the ship right; happily for us there was a dead calm, which permitted us to examine the berg.

At the only part along the side, where we could effectively act, it was found to be *four fathoms thick*, and along this it was determined to cut with the saw, if, providentially, time were spared us for the operation. On going round outside with the first Lieutenant, I counted nearly fourteen planks below the filled-up part of the main chains to the edge of the water, the angle of inclination being about twenty-five degrees, while on the lee side I stepped from the boat's thwart on deck. Looking at the bottom, we perceived that the keel, from the fore-foot aft, was torn and ragged, but to what extent the damage extended could not yet be ascertained. The exceeding awkwardness of our situation occasioned some difficulty in slinging and placing the stages and sheers for sawing, but this was surmounted; and by 11^h A.M. the work was begun, and went on cheerily. The men were told that much depended on their exertions, and were encouraged to finish their task the same day. Provisions were issued on deck, and weak grog supplied occasionally; and thus fortified, and assisted by the officers, they

sang and worked with that characteristic indifference to peril which has been so often admired in British seamen. While we were thus occupied, several seahorses came up, and after listening and stretching out their necks with a sort of curious stupidity as they drew themselves on the ice, they seemed undecided whether to remain or not; at length, however, they tumbled their uncouth bulks into the water, and disappeared. Meantime, considerable progress, as was imagined, was made with the saw; but, on sounding, it was found that instead of cutting up and down it had taken a slanting course, and thus obliged us to recommence; and the lower part, too, proved so hard, that a longer time was required for finishing the half yet undone. Seeing this, and reflecting that the heaviest part was detached, the same process was tried from aft; and, this being found to be easier, by midnight there remained but twenty-five feet to cut, for connecting the two sections. Again the crew were supplied with food, making the third pound to each man since the commencement of the work in the forenoon; but, on this occasion, hot cocoa was given instead of grog. After one hour's rest the laborious duty was resumed, and, stimulated with the desire of seeing the ship once more upright, they did not relax until nature asserted her prerogative.

After 2h A. M., July 14th, many became so fagged and drowsy that, in spite of the energetic remonstrances of the first Lieutenant, they worked mechanically, with their eyes shut; and therefore, anxious as I was that all should be accomplished before a change of weather or other contingency should interfere, and though ten feet only were wanting to unite the fore and aft line, I gave direction that all should quit the ice, and lie down for two hours. It was remarked, about that time, that the ship had righted a few inches, but still no one could move about the deck without holding on by the ropes to windward. The people had crept under the shelter of the deck to escape from the chilling air of the morning (for filmy ice was forming on the sea); the officers were dispersed about the deck above; and I was contemplating the languid action of those whose turn it was to take the pumps, and more particularly, three or four jaded forms, stretched out in death-like slumber on the lee side—when, suddenly, there was a sensible yielding beneath the feet, with the grating sound of breaking ice, and, before a word could be spoken, the liberated ship righted entirely; while broken spars, the bent saw, and the massy berg, were all in commotion together. Quick as they could spring, the crew jumped on deck, and I know not how many cheers commemorated the joyful occasion.

Capt.n Smyth del.

L. Haghe Lith.

SITUATION OF H.M.S. TERROR, ON THE 14th JULY, 1837

London J. Murray, Albemarle St.

Day & Haghe Lith.rs to the Queen

It was a scene not to be forgotten by the spectators. It wanted but one day to complete four months since the ship had been thrown upon the ice. In that period what extraordinary phenomena we had witnessed—what manifold mercies had shielded us when all seemed desperate, and now we were free: the good ship was once more in her own element, and subject to the will of man! I almost doubted the reality of what I saw.

The crew were again alive for duty; and having unloaded and hoisted up the boats, the termination, as we hoped, of our weary anxieties was celebrated by the distribution of a little grog to the crew, who, after three cheers, which they requested permission to give, to myself and the officers, the fine fellows were sent to their hammocks. The officers were glad to follow the example of the men: Lieutenant Smyth, in particular, must have been greatly fatigued; for since the 21st of June he had been himself daily at work, and his exertions throughout this trying affair were as meritorious as they were harassing. Two accidents only happened, from first to last, and one of these was slight; the other, as having befallen an invalid, was more serious, but yet not dangerous. What might have happened had the people remained on the ice it is difficult to conjecture; but as it rose and fell against the

ship's side, which again, on leaning over, pressed upon it, there is reason to apprehend that few would have survived that fatal crush. Wonderful, therefore, was the whole! and well might we repeat with the Psalmist, "They that go down to the sea in ships, and occupy their business in great waters; these men see the works of the Lord, and his wonders in the deep." Who amongst us can ever forget that day?

The ship, though tolerably upright, had a trifling list to port: her draught of water, after the consumption of one year's food, was reduced only one foot, being fourteen feet eight inches forward, and fourteen feet seven abaft. Left to her own guidance, she went slowly before the wind, avoiding, in a remarkable manner, the many pieces of drift ice which surrounded her. At noon the weather was beautiful. I now heard from the carpenter, that during the time the ship was on her beam ends, the midship part of the upper deck rose up, while both the ends were unsupported; a trial which, in his opinion, no other vessel could have withstood, but must inevitably have broken her back, and been in great danger of sinking. As soon as the hands were turned up, we commenced clearing the decks, and in endeavouring to stow away the gunner's stores, it was discovered that the water was pouring into the ship in two rills, which,

finding their way by the stern-post, fell over the transom with a gush. Every thing was immediately cleared out to enable the carpenter to get at the leak, and most of the things were wet from having been under water. The casks in which bread was stowed, being water-tight, little or no injury had been sustained by this important article. The water in the well had been kept under, at first with three, and subsequently with two pumps, constantly at work; and, even when the carpenters seemed to check the stream, which rushed through the leak, still those on deck could not relax in their efforts.

July 15th. To the N.E. there was a pack of solid ice, and the drift ice was too thick to allow the ship to yaw about amongst it; the little headsail, therefore, that had been set, was taken in, and we began to pass a chain round and under the projecting part of the stern-post, heaving it so tight as to secure it against the effect of a heavy sea. The old rudder was now, by the help of the sheers erected for that purpose, taken on board, and the new one hoisted out and hung in its proper place. Sail was then set, and, having tacked under some disadvantage, we entertained a very favourable opinion of the result of the experiment. The ship, however, was very leewardly, and the shock occasioned by the first piece of ice that struck against her,

showed clearly how much she was shaken and weakened. I had waited for the verification of my apprehensions, before I could bring myself finally to relinquish the object of my mission; but my last hope having now vanished,—the ship crazy, broken, and leaky,—I had no longer a choice; and, accordingly, assembling the crew on the quarter deck, I told them they were now going home. It may be well pardoned them that their countenances brightened at the intelligence, and their feelings were manifested by three hearty cheers.

Thus in effect ended an expedition, from which, had it been permitted to reach its port of disembarkation, it was reasonable to expect the full accomplishment of its objects. Uncontrollable circumstances prevented it. The problem itself, which it was intended to solve, remains of course unaltered. Whether, notwithstanding a repulse which may fairly be considered as accidental, a further trial is to be made, is a question for the consideration of those to whose zeal and perseverance the science of geography is already so deeply indebted.

The wind having got to the eastward, the ship was kept in the open water off Charles Island, in readiness to avail itself of any lead towards the mouth of the Strait. Another leak was discovered, which again intruded on our

Sunday service. At noon, the eastern point of Charles Island bore S. ½ W., and the ice continuing packed to the eastward, we contented ourselves with standing off and on. The ship, however, was so leewardly, that by noon, July 17th, we were only opposite to the east end of the same island, having made but seven miles to windward in twenty-four hours; though, in smooth water, with all reefs out and top-gallant sails set. The leaks had been partially stopped; but another passage was soon found out through and between the lining and the sides, and the same quantity of water made its way into the ship as before. As there was little prospect of much improvement in this respect, a different mode of working the pumps was adopted, and conduits were laid down and caulked, from the pumps to the ship's sides, in order to carry off the water without wetting the deck. We now sailed among loose ice, avoiding as carefully as possible any concussion; for the shock even of a small piece made the ship's frame tremble in a manner that proved beyond doubt her rickety condition. Night as it advanced, brought rain with fog, and a freshening breeze which induced us to shorten sail, and having tacked from the edge of the pack, we hove to.

Next day, July 18th, the topsails were treble reefed, and as the same misty weather prevailed,

much caution and dexterity were required on the part of the officers in keeping clear of drift ice. All hands were yet occupied during the day in clearing those parts of the after hold adjacent to the leaks, and in restowing such as had already been disturbed. The carpenters detected a considerable rising in the lining of the starboard side of the bread-room, just between the sleeper and the stringer, against which there had been so violent a pressure for many months past. He secured it with sixteen long nails. Though the wind had got round to the westward, yet, thick and rainy as the weather was, all that could be done was to steer clear of the ice; but on July 19th, the wind again veered to the north, and compelled us to beat to windward, to avoid being driven on the southern shore. At noon it rained heavily, and the ice was closely packed to the north-east. The two pumps were kept going as before, the leak making about four feet of water *per* hour. Temperature 35°+. In the afternoon the freshening of the breeze made it necessary to reef the topsails, and we continued skirting the edge of the pack until after midnight, when on the 20th, the ice beginning to stream off, and drift in vast quantities towards the southern land, it was requisite to make an effort to elude it, for fear of being carried with it in that direction. This, of necessity, threw us into the midst

of it; and, unmanageable as the ship was, and always going to leeward, the utmost attention on the part of those on deck could not prevent her striking or grazing against various pieces, from the concussion of which she suffered greatly.

Observing that the ice opened out to the north-east, in which direction I wished to go, for the purpose of returning along the known track of the north shore, rather than by the unfrequented, and almost unknown navigation of the south one, advantage was taken of the circumstance; and, though greatly annoyed by numerous unavoidable shocks from the drift ice, sufficient distance was gained to bring in sight the coast along which we had passed last year. Such, however, was the difficulty of steering clear of concussions, and so great the importance of saving our new rudder, which was in danger of being carried away, that further progress was impossible; and as by good fortune an extensive floe was near, the ship was got to it and made fast by the usual means of ice anchors. At that time, one compact sheet of ice filled the Straits from shore to shore, and extended to the utmost limit of view to the eastward. At noon Charles Island bore (east end) W.S.W. and the Labrador shore stretched to the south and east, terminating in a point. The temperature was 37°+, and 44°+ in the sun. That of the sea water which in a free

space was 35° +, was, when surrounded with ice, only 31° +. The effectual labours of the carpenter began to be manifested by a small but perceptible diminution of the depth of water in the well: in consequence, however, of the wood becoming sodden, the ship had increased her draught of water about two and a half inches. We found ourselves setting, as was supposed, fast to the south-east; and, in the evening, the floe to which we were attached split into three pieces, though leaving our part still large enough to hang on by.

July 21st. The ice had driven us nearer to the Labrador Coast, a few miles from which was an island conjectured to be that called Weggs. The main shore was high and apparently rocky, being diversified by hill and valley, where streaks and patches of snow yet remained. The channel between it and Charles Island seemed wide, and probably contributed to form some of the eccentric whirls, or currents, which every now and then visibly affected the ice. In the forenoon we were obliged to get more warps out, to haul the ship out of the way of such floe pieces as threatened to drive against the rudder; for, though the south shore might have been approached, there was not the smallest opening to the north and east, nor indeed to the west. Two whales were seen, and a narwhale, together with a few boat-

swains. At noon Charles Island bore W. by N. about eight leagues distant. There was much drift ice incommoding us in the afternoon, when the ship was hauled alongside the floe to allow of our filling our tanks with fresh water. There must have been a perfect block to the east; for, though the wind was westerly, and, consequently, down the Straits, we moved only to the southward with the ice, which took us nearer and nearer the shore. About 6^h 30^m there was a probability of getting three or four miles to the south-east, whereupon we cast off from the floe and made sail, and, having accomplished the distance at 8^h P. M., we again made fast to a large floe. This had certainly been exposed to heavy pressure, for many blocks and masses of ice were thrown upon it, to the height of fifteen or twenty feet.

July 22d, presented one glare of ice to the north-east and south-east from shore to shore, and at noon, we found by the observations that our drift had rather carried us in shore; so that we had now an opportunity of beholding the coast in all its frowning grandeur. It rose into high hills, deserving the name of mountains, and these were broken into numerous vallies, that, after shelving in some places towards the sea, terminated abruptly in fearful precipices and perpendicular cliffs, accessible only to birds.

Some islands lay off, and, though evidently of no mean altitude, were completely in shade under these towering cliffs. Harbours and deep bights were sufficiently defined, but all were choked with ice, and unapproachable except by such pressure as we had no desire to experience. Two pumps were still required to keep the ship free. A whale was seen and several morses. Throughout the afternoon large floe pieces were observed to be setting in atmost every direction, even against the wind, which had considerably increased in strength; and frequently we were not a little embarrassed to protect the rudder against their assault, being compelled to make use of warps to avoid them. The carpenter, on examining the lining below, found that the water trickled through still higher than before, and that, in consequence, the ship's draught was augmented to fourteen feet eleven inches fore and aft, being three inches deeper than when she righted from the ice.

Finding that the ice continued in motion, and that there was a lead somewhat nearer the land, I now decided on trying it, as not the slightest probability appeared of an opening towards the north shore, where, on the contrary, the view presented only one compact body of impenetrable ice. Although, therefore, I was not without some anxiety of being closed in against the

shore, if, as was not impossible, the breeze should veer to the north and drive all the windward ice upon us; yet I had, in fact, no alternative. At $8^h\ 50^m$ P. M. the surrounding masses began to drift to the south-east; and, coasting off from the floe, we threaded an in-shore lead under easy sail until 11^h P. M., when farther progress being interrupted by the closing of the ice, the ship was kept beating to windward of the pack until the morning of July 23d, with the view of taking the first favourable opening that presented itself. The ship, however, decided the point herself rather more quickly than was anticipated; for, refusing to answer the helm, which had been put a-lee for tacking, she drove bodily to leeward into the pack, to the great risk of carrying away the rudder and the remainder of the stern-post. This freak cost us some severe shocks in forcing a passage to a floe, round whose point we contrived to get by means of warping; and, as the prospect was rather more promising, sail was kept on the ship, and she bored her way with many sharp concussions and infinite windings till about 1^h P. M., when, having run between twenty and thirty miles, she was stopped by the usual impediment. Trifling as this distance may appear, it seemed considerable to us who had been so long driven wherever wind and tide chose to carry us. The line of

coast was still mountainous and imposing, with a singularly irregular outline, partially lost in a horizontal band of fleecy clouds, which the fineness of the day allowed to dwell there. Nor was variety wanting; for, besides numerous dark and rugged islands extending from point to point, there were spacious bays and harbours, almost land-locked, and stretching so far inland as to lose their sombre aspect in the soft blue of the distance. In one place there was an amphitheatre of frowning hills, the bases of which were buried in mist, while the picturesque summits stood out clear and defined, touched here and there with snow, producing an effect most striking, but of which no description could give an adequate idea. Four noisy natives of the Esquimaux race had the hardihood to venture through much difficult drift ice to the ship, from whence, however, they returned amply rewarded, and the richest of their tribe. Some of the presents, supplied for that purpose by government, were given to them, together with a few brass medals, having the ship's name on one side, and a figure of Britannia on the other. The north shore could be seen from deck.

In the evening the ice became rather slacker, and an intimation of the freshening of the westerly wind was given by the slipping of the warp over the head of the hummock to which it

was fastened, in consequence of the increased straining of the ship. Early on July 24th a tempting lead appearing in the right direction, that is to say, slanting off the shore, sail was again made, and leaving the floe, under the influence of a fresh breeze, we proceeded three or four miles without any impediment from ice. At the end of that distance, however, the ship was compelled to bore among heavy masses, and in so doing there was no possibility of escaping many serious blows that shook her whole frame, though still without apparent injury. At $9^h\ 30^m$ the impracticability of proceeding further became apparent, and we made fast to an extensive old floe, of the yellow tinted kind, which happened to be at hand. I ought to mention that, at one time, we fancied a brigantine was in sight, which, as the day became clearer, turned out to be an iceberg, being over towards the north shore. We had succeeded in drawing away from the land about twenty miles, and the whole of the forenoon we were set considerably to the south-east. The hope of getting entirely free of the ice and breathing a different air had diffused fresh spirits in most of our invalids; but it was annoying to find a new patient in the list, and one, too, who had passed through the regions of the winter without evincing the least symptom of disorder. The whole affair, indeed was inex-

plicable to the medical officers, as we had had the advantage of the best provisions, and assuredly every comfort which persons situated as we were could possess. At 1h P.M. catching a glimpse of an opening we left the floe, but after some boring were stopped, and again held on by the heaviest floe we had seen since the winter. There had been immense pressure on it, as with the floes in Fox's Channel, whence, judging from its dirty yellow colour, it had in all probability come. In the evening we made another attempt, which, after an hour's trial, was again relinquished, and we made fast as before to another floe, a great number of which lay in every direction.

July 25th. The westerly breeze now failed us, and up to noon the ice was infinitely too close to permit our moving. After some time however, the ship was warped from floe to floe, as circumstances admitted, and at 5h P.M., just when it was thought that further progress was hopeless, and we were about to make fast, the ice gradually opened out, and sail being immediately crowded on the ship, she went with hard boring between very heavy ice, at the rate of two or three knots an hour, as was imagined, directly towards the north shore.

July 26th. It fell partially calm, but after 8h A.M. a light air sprang up; and, though com-

pletely hampered with ice of all descriptions, for the berg was then plainly discerned from deck; yet we thumped and glided on from piece to piece, and thus contrived to make a kind of devious course to the east-north-east. The Labrador coast was thrown up considerably by refraction, and, even allowing for this, appeared much nearer than our estimated run gave us reason to suppose. At noon this was accounted for by the discovery that, though the longitude was considerably to the east, the latitude was actually a few miles south of yesterday's, thus demonstrating the influence of a current setting from the west along the Labrador shore, directly contrary to the set described by other officers as existing on the north side of the Straits. This fact corresponded with what we had already experienced somewhere about Mill Islands, where it may be remembered some overfalls were seen, which, together with a strong set down Fox's Channel, so completely overpowered the sailing qualities of the Terror, that for two days she was unable to beat through them. It is not improbable, therefore, that the upward current, becoming dissipated and broken along the sinuosities of the northern shore, may be finally turned by the stronger one from Fox's Channel, the effect of which would be that the set would be carried between the islands towards

Charles Island, and thence east into the Atlantic, as we found to be the case in fact.

During the remainder of the day, and until noon of the 27th, the wind was light, but still strong enough to enable us to sail and bore among extremely heavy ice, which, from pieces of moderate dimensions, all at once changed its character to enormous floes, completely blocking up the passage across. We could therefore only coast along them, as well as the impediments permitted.* Our progress, therefore, was necessarily slow; but after 9^h P. M. a casual slack taking place, the ship forced her way a few miles ahead, striking with startling violence, but yet, as on former occasions, without increasing her leakage, though a great deal of oakum had worked from out the seams under the counter. The ice was of an extraordinary thickness, and had, moreover, long projecting tongues two or three fathoms below the surface, which so obstructed our course that, though the ship's head pointed often N.N.E., we only made good a S.E. line of direction. By midnight the entire body of ice closed in and beset us; and the appearance, at the same time, of a faint aurora, brought about the recollection of last autumn.

* Two pieces of ice with fragments, refuse, &c. passed us. They were conjectured to have come from one of the Hudson's Bay Company's ships probably passing along the north coast.

July 28th brought no difference in our prospects, except indeed the unwonted presence, at this season of the year, of no fewer than nine or ten large bergs, the produce of Davis's Straits, proving the prevalence of easterly winds from seaward, although of late we had experienced westerly ones in Hudson's Strait. Bergs of this description are always described, by those employed in the Greenland fishery, to 'hold,' as it is termed, a great deal of water; but every one of these, so far as could be discerned from the mast-head, was hemmed tightly round with ice, nor was water visible in any point of the compass, with the single exception of a narrow lane towards the Labrador shore. At noon the centre of Long Island bore S. W. There was, and had been for two days, considerable refraction of objects. The ship did not go her own length ahead, by any power derived from her sails, and at night the ice was unusually close-packed; but what most astonished us was a gentle swell, which perceptibly agitated the whole body around us, and indicated the neighbourhood of open water, disturbed by strong easterly winds; so that, having, in a manner, exhausted the fine westerly breeze which had brought us thus far through the seemingly endless nuisance (for it was now one year since we first encountered it), our ship gently drifted to

the south-east, in a sort of neutral territory between the confines of the polar and temperate regions.

July 29th. It was in vain that topmast and top-gallant studding sails were set, for though they seemed to hug the gentle air aloft, we remained immovable. Daylight however proved, by the altered appearance of Long Island, that our drift had been southerly, and this was farther verified by the appearance of some flocks of ducks flying from the land towards the north. At noon our position was much the same, only that land, supposed to be Green Island, was observed to bear south-east. The temperature was 54°, having risen from 33°+. We were still completely beset, and as the day declined, the wind, gradually veering to the eastward, so interlocked the points of ice as to give the appearance of one vast floe. In the twenty-four hours, according to the noon observation of July 30th, our drift had been a little westerly, and full fifteen miles due south, which brought us still nearer to some low islands lying off Long Island. With every available sail set, the ship had forged ahead about twice her own length in four hours; and though more or less sail was carried, according to the strength of the breeze, at midnight only a few hundred paces of distance had been gained.

On July 31st, so close was the ice, that there

was no possibility of keeping the ship's head in the right direction, or preventing her from drifting bodily towards the land: sail, therefore, was shortened, and we made fast to the largest piece near. By this measure, however, our way to the south was rather increased than diminished, and sail was again set; when, after drifting considerably to leeward, her head was at length forced in the right direction, and she went ahead about twice her own length. Then, finding all further exertion useless, the former plan of carrying out an ice-anchor to the heaviest piece was adopted, and, the sails being furled, we remained quiet until $10^h\ 30^m$ A. M., when, by a sudden revolution of the ice astern, a weighty mass came in contact with the rudder, and, before we could warp out of danger, had well nigh carried it away. A few minutes, however, sufficed to haul the ship's broadside to the larger piece, where we lay secure. It might have been expected, from our previous drift with a westerly breeze, that now that the wind had drawn round to the north-east we should have been driven still more to the southward, where some low rocks, apparently not much above the water, were ready to receive us. But here again was another anomaly; for, notwithstanding the drag of the ship against the ice to which she was anchored, greatly to our astonishment she went to windward, almost, indeed, in the wind's eye, so that

by nightfall the coast of Long Island, whose rugged rocks were contemplated eight hours before with no agreeable sensations, was beginning to assume a fainter tinge, and to give place to the loom of some uncertain land, conjectured to be Green Island, bearing about east.

Heavy rain, similar to that ordinarily met with at the edge of a pack, or at least in the vicinity of open water, together with thick weather, effectually screened the shore from view. This continuing throughout the night, on August 1st we had no means of ascertaining our position otherwise than by sounding; but as this gave one hundred and twenty-eight fathoms water, on a muddy bottom, all cause for anxiety was at an end. The ice continued to slacken about the ship and to windward, and at noon the temperature was 34°. Two pumps were always required to keep the ship free; and, notwithstanding our present sheltered situation, yet the jerking and concussions received from passing ice added to the effect of a slight swell, just sufficient to swing the broadside at intervals against the piece to which we were attached, had contributed to weaken still further the after part of the ship, so that, to use the carpenter's phrase, "the bolts wept;" or, in other words, were already sufficiently loosened to allow of the waters oozing between them and the wood.

The result was an increase of water in the well, amounting now to a little more than five feet *per* hour, and an apprehension that it would be still further augmented on exposure to a rolling sea. Several heavy remnants of floes hovered for three or four hours of a rainy night alarmingly near our rudder and quarter; and, anxious as we were to guard these tender and important points, it was not a little curious to observe the eccentric movements of those huge masses; now pressing directly towards us, now turning aside and athwart the previous course, as it were reluctantly retreating; then again, as if urged by fresh vigour, turning slowly round, and gradually reapproaching; until suddenly, under some powerful but unseen influence, their whirling ceased, and they started off with accelerated speed in a straight undeviating line, immediately against the wind, ploughing up or tossing aside every impediment that crossed their way. Rain fell all night, up to noon of August 2d, the wind continuing north-east and the ice close, whilst a gentle swell occasionally agitated the ship. No land could be seen. At $2^h\ 40^m$ P. M. a sudden commotion took place among the ice, perhaps occasioned by the spring tide, which drove a large floe against the ship, upon the starboard quarter, with a crash that brought most of the officers on deck. Fortunately, the blow

was not repeated; and, after a lapse of two hours, it floated away to the leeward, whither, indeed, all the lighter ice seemed to be drifting, in the direction of south-east. The same dark thick weather, with incessant rain, prevailed throughout the night, the ice being often very slack, and then closing again with some degree of violence.

August 3d. Finding that the stern was more exposed than the bow, which had the shelter of a projecting point of our holding piece, the ship was turned round end for end, and secured; though, such was the uncertain action of the drift ice, that it was little better than chance which was the better direction. At noon we were still in the dark as to our position; but, judging from the numerous flocks of loons flying backwards and forwards morning and evening, it was conjectured that the land could not be very remote. Meanwhile, the easterly wind and mist continued, the temperature varying from 32° to 37°+. About 2^{h} P. M. the ice closed rapidly around us; and a heavy floe which had been at rest for some hours, acquiring instant speed, struck our holding piece so forcibly as to split it, leaving, however, a remnant sufficient for our purpose, when some necessary alterations had been made with the warp. At 4^{h} there was a partial clearing above, and some low land

was indistinctly seen, bearing E.S.E. ; but the return of the mist again obscured it, and left us ignorant of what part it was. Immense flocks of loons kept constantly flying in every direction, betraying a restlessness altogether unaccountable. There was no lack of water, which, however, they seemed to disregard ; so that had not we caught a glimpse of our position, I should have certainly thought we were not far from the rocks where they roosted. Not long after this, two bergs were discovered ; and the wind having veered to north-west, and the ice become more apart, I determined on casting off from what had carried us safely through three days of mist. I was utterly at a loss to know whether the ship was north or south of her last ascertained position ; but, as the horizon was visible for about four miles, and nothing appeared to indicate land, we warped a short distance, and then made sail. The ice continued slack, and we had the satisfaction to find that the ship glided through the water, though not without the usual penalty of some severe shocks, which made her tremble to her very keel. The carpenter had been assiduously employed in an attempt to force up a quantity of oakum and tallow between the doubling and the rents in the stern-post, in the hope of choking some portion of the leaks thereabouts ; and the experiment, so far as he

could judge from the disappearance of the material used, was attended with tolerable success. At midnight there was almost a calm, and the whole body of ice began to set fast to the south. However, on the 4th, the breeze revisited us, and with more or less obstruction we went on under the same sail. The ice now lay more in streams than formerly; and between these there was so much water, as to induce the ice-mate to suppose we had got to the edge of the pack. That this was not the fact was subsequently proved by our being again slightly hampered at noon, when by the latitude of 67° 47′ N., it was evident that notwithstanding the northern course which had been steered, we had still crept to the southward. At 4^{h} P.M. Green Island was clearly visible from S.E. to E.S.E., considerably to the south of us, although bearing north by the charts; a circumstance easily accounted for, as it had only been seen by the dead reckoning of one of our predecessors, and marked down accordingly. Its true position is in latitude 60° 30′ north, and longitude 67° 26′ 20″ west.

As the sun declined, the weather cleared and brought on a fresh breeze that shortly increased to a smart gale; and the ice being closer and heavier than in the early part of the day, it became requisite to shorten sail and close-reef the top-

sails, to lessen the violence of the shocks unavoidably received. Some of these, indeed, were sufficiently alarming to cause anxiety for the safety of the rudder; for, as we were in what is called a loose pack, with no piece large enough to make the ship fast to, she drifted against them broadside on, and, drawing her length along with much pressure under the quarter, threw a powerful strain on the stern-post.

On August 5th, about 2^h A. M., a splendid comet-like meteor appeared in the south-east, which darting from somewhere near the zenith in a brilliant prismatic blaze, and, taking a direction towards the horizon, burst about fifteen degrees above it, and after scattering rays of beautiful sparks, vanished altogether. Towards morning a ground swell was felt, and the ice becoming much slacker, and the wind lighter, (though still fresh), we made some way to the north, having passed two large bergs, which the night before were barely in sight. Green Island, too, was distant and much refracted. We now, for the first time since leaving Charles Island, got into a space of eight or ten miles of open water, and setting the main sail we beat to windward to round a point of ice, which, however, was not effected by noon. The latitude was found to be 60° 54′, and there seemed a reasonable proba-

bility of getting still more to the north, which I considered the only certain way of avoiding the southerly set, and accomplishing a speedy passage out of the Strait. Easterly winds must have been unusually prevalent hereabouts, since a large proportion of the heavy ice, recently encountered, was decidedly the produce of the deep bays and inlets in the neighbourhood of Davis's Strait, as was evident from their weather-beaten form, and the difference of colour, which was of a purer white and deeper blue than what we had been accustomed to. In addition to these, there were the bergs spreading at every point, but which, with a northerly or westerly wind, would, long before this time, have been far on their journey towards the banks of Newfoundland or the Gulf Stream. After three or four tacks we reached open water at 6^h P. M., at which time Green Island was but just in sight, and the north shore, with Button's isles on the other side, soon came into view. The wind having abated, all sail was crowded on the ship, and at 8^h P. M., there were but three or four bergs and some straggling streams of ice to be seen, while a peculiar gloom of a leaden grey tinge, the effect of a dark sky on open water, seemed, to eyes inured to a twelvemonth's glare of Polar ice, unusually dull and heavy. But it had not power to damp the joy that

beamed on every countenance, at the long wished for liberation that now quickly broke upon us. Our invalids became animated; and, even the few who were seriously affected, and had long worn the sallow livery of disease, raised their feeble frames from their beds, and, with a smile, once more thought of home. Snow appeared to be still lingering on the high land from Terra Nieva to the East Bluff, the denuded parts of which were strangely striated by the refracted ice clinging close along the sinuosities of the coast. One of the lower savage islands, alone, was seen dark and solitary in the opening; and beyond it, in colour not much deeper than the sky, was the bulky form of Resolution, the Calpe of the Strait.

With more or less obstruction from adverse tide or current, we pursued our joyous course, until on August 6th calm and rain for a while checked it; soon, however, a light air again sprang up, and at noon we were hastening onwards. We now hauled up more for the land, in order to clear the extreme point of some stream ice, but were puzzled at seeing only four hills to the north, instead of Resolution Island; the latter, however, was at length discovered in the shape of a narrow horizontal line far up in the clouds, on the dispersion of which we found ourselves nearly opposite to Hatton's headland. Every sail that could be

set was spread to the breeze; though, scarcely had we fairly launched into the wide opening of Davis's Strait, than we were compelled to put the ship under snug canvass. In the midst of one of the squalls the look-out man called out "ice ahead;" and before there was time to perform any evolution, we were right among it: luckily, it was only the straggling edge of a loose stream, which was passed without injury, though it required the utmost vigilance to steer clear of the numerous bergs seen dimly through the haze of a starless night.

Early on August 7th Resolution Island was just in sight, astern; and, under the influence of a most promising westerly breeze, sail was again crowded, while active measures were adopted to hoist inboard and firmly secure our boats, anchors, &c., for the voyage across. One circumstance alone gave cause for uneasiness, and this was the working of the injured parts of the stern-posts and keel by which more water necessarily found admission. A strong shore was immediately fixed to counteract it, which in some respects answered well; though it was not altogether effective, since the pumps were constantly required to keep the ship free. The arduous duty thus imposed on a weakened crew, together with other considerations, induced the surgeon to recommend an additional meal of preserved meat in the week, with more an-

tiscorbutics. It had been observed, indeed, that the apprehension of sickness had induced most of the men to go without food, except such as they could save up of fresh provision, rather than take their regular allowance of salt meat. We now went cheerily along between ice bergs of an extent and altitude such as I had never before witnessed, until, leaving them far behind, the temperature of the sea-water gradually increased from 36° to 41° +, and indicated our entrance into a warmer climate.

August 9th. The shattered condition of the after part of the ship forced itself hourly more on our notice, and, though yet unexposed to any thing beyond a moderate sea, the rickety state of the stern-post and other parts, such as the dead-wood, heel-hook, and heel-knee, as well as the increased leakage between the lining, rendered immediate attention necessary, before the arrival of a gale should put us to too severe a test. Consequently the heel chains were again set up, and being brought over each quarter were hove tight by the capstan; and in order to prevent the scarphing of the doubling on the keel from breaking adrift, as was apprehended by the carpenter, as well as to secure the doubling itself, a length of the stream-chain cable was passed under the bottom of the ship, four feet before the mizen mast, hove tight by the capstan, and finally im-

moveably fastened to six ring-bolts on the quarter deck. The effect was at once manifested, by a great diminution in the working of the parts already mentioned, and in a less agreeable way, by impeding our rate of sailing; a trifling consideration, however, when compared with the benefit received. Another man was added to the sick list, a second showed symptoms of scurvy, and the same evening Mr. Webster, the gunner, was similarly affected. Nothing could be more favourable than the wind and weather had hitherto been since quitting Hudson's Strait, but though many additional bolts and supports had been placed abaft, yet the working of the ship, as she was thrown about by the sea or swell, began sensibly to loosen the bolt-heads in the heel-hook, while the lining was much swollen. The only immediate remedy for these unavoidable evils, was the substituting more shores to counteract the effect, and give what strength we could.

August 11th. The stay bolts in the tiller broke, owing to a rather heavy swell from the south-west acting against a northerly breeze, which rolled us about a great deal. From that time we went on slowly, without material change, until the 15th, when, having rounded the broad point of Cape Farewell, we were all at once exposed to a swell from the north east, which, though the breeze entirely died away, increased to such a

degree as to resemble the sea off the Cape of Good Hope more than anything else. The consequences to us were serious indeed, for, from the unavoidable pitching, rolling, and straining of the ship, the entire stern frame became more and more loosened. The fastenings and bolts were rickety and twisted: this naturally slackened the preventer lashings, till that time of great utility, and an additional quantity of water, now forcibly rushing in from a variety of places, warned us how little we had to depend upon for safety, except the providential care which had hitherto been our stay and comfort. We did not however neglect to put four extra screw eye-bolts on each side of the heel-knee, through which ten turns of two-inch rope were passed for a lashing, that in some measure relieved the immense strain previously sustained by the others. Nevertheless the leaks did not abate, and owing to the quantity of coals stowed in bulk below, and the manner in which we had been thrown about, the limber holes had got choked, so that on inspection not less than fourteen inches of water were found over the casing of the water-courses. This obliged us to cut a hole through the bulkhead on the starboard side, to allow of its egress to the pump well, and when it was done, the service of the whole crew, properly divided into parties, was required for upwards of three hours and twenty

minutes, out of the four hours of each watch, to keep the ship free. In fact she was becoming daily more sodden and heavy, as was proved by her diminished rate of sailing, which now, under every advantage of wind and sea, never exceeded five knots an hour. Generally, however, she averaged from two to three, and in moderate weather with any swell still less.

August 18th. The keel chain having been slackened, owing probably to the working of the damaged part, was again hove tight with the capstan. The effect of this was soon shown, for the shores and fastenings below, where the carpenter of the watch was stationed, were observed by him to be set firm, thus proving beyond all doubt the loosened state of the under portion of the ship. Thus patched up, while favoured with moderate weather, we made reasonable progress; but during any abatement of the breeze, the rolling and plunging of the ship excited much anxiety, for the leaks still gained, and the altered appearance of the crew plainly evinced the change that was taking place, from their incessant labour. Nor could it be concealed that the quantity of water always rushing backward and forward below, was beginning to affect the equilibrium of the ship, which now visibly heeled over to starboard. The favourable conjunction of circumstances which had carried us thus far without any squall or

tempest, encouraged many in the hope that we might be altogether exempted from such unwelcome visitations.

On August the 28th, however, the clouds grew dark and gloomy, whilst misty scud drove rapidly before the coming gale, and the heavy roll of the sea threw us about in every direction. The bulkheads being considerably loosened, worked so much, that it became necessary to introduce numerous wedges. These for a time answered the purpose of keeping them firm, especially when by carrying a press of sail the ship could be kept well over on one side; but on examining below, it was found that the bolts and tree-nails in the after-part of the sail-room were started, which in consequence was so much weakened, as to allow the rushing in of a stream of water between the lining. This again demanded immediate attention, and though the ingenuity of our able carpenter enabled him to check its progress in that particular place, it soon forced its way to another.

August 31st. The continuance of the gale augmented our difficulties, for a fresh leak was discovered on the larboard side of the heel-knee, and a considerable quantity of water found its way into the magazine and injured the powder. The bread-room, too, was partially flooded, and the entire stern-frame worked with every roll,

to such an extent, that it seemed almost impossible to keep the ship from filling. The heel chains being found slack, were again about to be set up, when it was ascertained that the screw ring-bolt fixed in the outer dead-wood on the larboard side had been carried away, so that the loosening of the chain was not to be wondered at. It was, therefore, hauled up, while the remaining one, on which alone we had now to depend, was set as tight as possible. Still the water rushed violently in below, more especially about the stern-post and heel-hook; and oozing through different parts higher up, fell like a cascade into the bread-room and 'run.' Two more screw ring-bolts were now driven into each side of the heel-knee, which was secured by a lashing of eighteen turns of two-and-a-half inch rope, while, apprehensive that further injury had been sustained about the keel, another length of chain was passed under the bottom, and set well tight to a part of itself across the after-part of the quarter deck. The ship was becoming excessively uneasy; for the unabated fury of the gale, strengthened by squalls, raised a long breaking sea, in which she plunged so heavily, that it was often unusually long before she recovered herself. It was evident she was hourly getting more water-logged, and the straining and creaking of her whole frame, the working of the

bulkheads, which actually raised the officers' bed-places, the rickety twisting occasioned by the fore and aft motion, and the prolonged dull roll to windward, to say nothing of the cascade-like rushing of the water within, — all these were certain indications of a consummation which no exertions of ours would probably be sufficiently long to defer. Whilst thus seriously anxious, I was acquainted, shortly after midnight, by Lieutenant Smyth, that the crew were no longer equal to the task of keeping the leaks under, and that, consequently, we were sinking. Such, indeed, was for the moment the fact; but the fine fellows, though dreadfully exhausted, again rallied, and cheered and aided by the officers, worked with renewed vigour, until once more they accomplished, and thenceforth maintained their object.

Up to this moment I had intended to proceed to Stromness, but it now became absolutely necessary to make for the nearest land, and as Lough Swilly, on the Irish coast, offered the easiest access, that harbour was at once selected. However, on putting the ship before the gale, she was so difficult to steer as to compel us to take in all the sail off the main-mast, and to depend on a treble-reefed fore-top-sail, fore-sail, &c.: even then she was so wild as to be scarcely manageable. The crew were now so harassed with

unremitted work at the pumps, which could not be left for a moment, that they were fast wearing out. To aggravate our disasters, the ship, too, laboured so as to make it impossible to light a fire, and thus deprived us of the nourishment essential for the restoration of our exhausted energies. This, however, was in some measure compensated by a liberal allowance of preserved meats, which, on this, as on many other occasions, we had found extremely useful.

The weather continued very boisterous, and so thick that Rockall, though within ten miles of us, was not seen. A heavy sea now struck the after-part of the ship, and, to complete our misfortunes, sprung the main piece of the rudder on the larboard side, not far from the deck. Happily we were enabled to get at it, and by passing seventeen turns of strong whale line round the injured part, we contrived to secure it. Still, as successive seas came rolling thickly upon us, we watched with intense solicitude the result, well knowing that if it gave way again the safety of the ship was hopeless, even if life itself could be preserved.

On we struggled, crazy and waterlogged, but the gale abated; and on Sept. 3d, crowding every stitch of canvass, we descried a sail in the distance, the first we had yet seen. Under ordinary circumstances a signal would have been

made to attract her attention, but time was too precious with us now that we were pressing forward for our lives; and about two o'clock in the afternoon, within half an hour of our calculation, the joyful sound of land was announced from the look-out man at the mast head. It was late when we closed it, and being anxious to obtain a pilot, rockets, blue lights, and guns were fired for that purpose, but no one came; wherefore, trusting to the soundings, we glided silently past the lights of the fishermen's cottage, and near midnight anchored safely in Lough Swilly.

Fifteen long months had elapsed since that pleasing sound of a falling anchor had greeted us; and when we reflected on what had passed in that interval, and, above all, on the difference which a few hours had made in our prospects, we could not but feel devoutly grateful to Providence for the mercy which had been vouchsafed us. It was impossible immediately to compose our feelings into tranquillity, and the remainder of the night was passed in a state of feverish excitement. When morning came, with what indescribable delight did we inhale the fragrance and contemplate the beauty of the land. Imagination could scarcely picture a scene so enchanting as to our weary and frost-dazzled sight appeared that soft and lovely landscape, with its fresh green tints and beautiful

variety of hill and dale. It was an enjoyment to be felt but once in a life, and how much was that enjoyment enhanced when the wind suddenly changed and blew a gale off shore, which but a few hours earlier must have driven us back to sea, and, in all probability, terminated our labours in a different way.

Harassed and worn out by extreme toil, the crew were no longer able to work as formerly, and though ably assisted by the officers and men of Her Majesty's service stationed along the coast, and especially by Lieutenant Murray, and the officers and crew of the Wickham, yet the Terror was gradually sinking by the head, when finding that their united efforts were unequal to keep her afloat, it was determined as the last resource to run her ashore on a small sandy beach selected for the purpose. It was found at low water that upwards of twenty feet of the keel, together with ten feet of the stern-post, were driven over more than three feet and a half on one side, leaving a frightful opening astern for the free ingress of the water. The forefoot too was entirely gone, besides numerous bolts either loosened or broken; and when, besides this, the strained and twisted state of the ship's frame was considered, there was not one on board who did not express astonishment that we had ever floated across the Atlantic.

Her Majesty's Government being informed of our situation and of the sickness that had prevailed, under the effects of which seven were still suffering, immediately sent a vessel round for the conveyance of the invalids to Devonport. They had in the meantime been committed to the care of Dr. Evans, at Burncranah, from whose judicious treatment the greatest benefits were derived.

A party of shipwrights from Chatham was also sent under the direction of Mr. Rice, in the Columbia Steamer, which was eventually laden with a part of our stores, and whose commander, a Mr. Thompson, lost no opportunity of rendering every aid in his power. The zealous attention of Mr. Rice and the indefatigable exertions of his party are best attested by the fact that the work was completed about the 18th of October, when the Terror was hauled off to the anchorage and again prepared for sea. Nor must I here omit to mention the hospitality displayed by many estimable families in the neighbourhood of Lough Swilly. To their attentions, indeed, may be attributed the speedy restoration to health of many of the officers, who, equally with myself, will ever retain a lively recollection of their kindness.

When all was ready, occasionally assisted by the Columbia, we made sail along the coast, and

with only one detention at Lock Ryan, arrived first at Devonport and subsequently at Chatham, where the Terror was put out of commission and taken into dock.

CHART
OF
HUDSON'S STRAIT
and the NORTH COAST of
SOUTHAMPTON ISLAND
Showing the Track of
H.M.S. TERROR
Captain George Back
during the years 1836, 1837
SOUTHAMPTON ISLAND
HUDSON'S STRAIT
NORTH BAY
Duncan's Bay
Walker's Bay
Parker's Bay
Cape Comfort
Cape Dobbin
Cape Pembroke
Cape Hamilton
Cape Fullerton
Cape Churchill
Cape Tatnam
Cape Wolstenholme
Cape Chidley
Resolution I.
Digges I.
Nottingham I.
Mansell Island
Salisbury I.
Diana Bay
Duke of York Bay
Frozen Strait
Fox Channel
Foxe Basin
Foxe Peninsula
Melville Peninsula
Baffin Land
Labrador
Ungava Bay
Hudson Strait
Ungava Peninsula
Longitude West from Greenwich

APPENDIX.

APPENDIX.

The few birds and animals obtained during the expedition are so familiar to the readers of Arctic zoology as to render any notice of them altogether unnecessary; it may be mentioned, however, that a very small halibut (the only fish seen) was found in the beak of the Lestris Pomarinus.

The Temperature was taken hourly by the different officers, and carefully arranged by Lieut. Smyth, but the Monthly Means alone are inserted here.

The Latitudes, Longitudes, Variation, and Dip are selected from the Observations of Lieut. O. Stanley.

Monthly Means of the Meteorological Journal, 1836–37.

Months.	Temperature of Air.			Sea water.	South Ther. in Sun.	Ther. at Mast Head.	Lower deck Ther.	Barometer.			Sympiesometer.			Remarks.
	Max^{m}.	Min^{m}.	Mean.		Max^{m}.	Min^{m}.	Mean.	Max^{m}.	Min^{m}.	Mean.	Max^{m}.	Min^{m}.	Mean.	
								° ′	° ′	° ′	° ′	° ′	° ′	
1836.	+	+	+											
July -	53.	30.½	44.6	44.1	- -	- -	- -	30 38	29 20	29 83	30 30	29 05	29 73	Wind West^{y} 22 days.
August	40.	22.	32.	30.	- -	- -	- -	29 95	29 06	29 62	29 96	29 00	29 64	Wind East^{y} 22 days.
Septemb^{r}	40.	16.	28.	28.	- -	- -	- -	30 30	29 03	29 58	30 26	29 00	29 63	
		—												10 days West^{y}.
October	32.	21.	16.	- -	- -	- -	- -	30 37	29 18	29 85	30 36	29 10	29 81	22 — North^{y}.
	+	—	—				+							17 days North^{y}.
Novemb^{r}	25.	38.	5.	- -	- -	- -	70.	30 30	29 38	29 85	30 31	29 28	29 66	19 — West^{y}.
	+	—	—		+	—	+							19 days North^{y}.
Decemb^{r}	2.	53.	28.	- -	2.	20.	66.	30 62	28 24	29 84	30 48	28 21	29 76	22 — West^{y}.
1837.	+	—	—		+	—	+							17 days North^{y}.
January	12.	54.	24.	- -	11.	20.	70.	30 86	29 08	29 97	30 72	28 97	29 86	22 — West^{y}.
	+	—	—		+	—	+							20 days North^{y}.
February	2.	50.	30.	- -	14.	30.	71.	30 15	29 94	29 79	30 06	29 09	29 68	17 — West^{y}.
	+	—	—		+	—	+							19 days North^{y}.
March -	22.	41.	13.½	- -	37.	10.	64.	30 88	29 15	30 04	30 71	29 02	29 91	12 — East^{y}.
	+	—	+		+	+	+							21 days North^{y}.
April -	25.	26.½	14.	- -	65.	12.9	59.5	30 46	29 30	30 01	30 37	29 15	29 87	15 — East^{y}.
														15 days South^{y}.
May -	52.	2.	28.½	- -	- -	- -	- -	30 30	29 44	29 88	30 14	29 28	29 75	18 — East^{y}.
														19 days East^{y}.
June -	59.	22.	25.	- -	- -	- -	.. -	30 47	29 38	29 91	30 32	29 16	29 72	22 — South^{y}.
														19 days West^{y}.
July -	55.	29.	37.	- -	- -	- -	- -	30 20	29 92	29 92	30 04	29 25	29 69	14 — South^{y}.

Mean temperature of Winter months from October to March - - - - } Below zero 14°

Mean height of the Barometer and Sympiesometer from August 1836 to July 1837 } Bar. 29.80 Sym. 29.70

A TABLE of the LATITUDES, LONGITUDES, and VARIATION.

Date.	Latitude.	Longitude.	Variat^{n}.	Date.	Latitude.	Longitude.	Variat^{n}.
1836.	N. ° ′ ″	W. ° ′ ″	W. ° ′	1836.	N. ° ′ ″	W. ° ′ ″	W. ° ′
June 24	59 57 00	4 41 00	26½	Aug. 9	63 30 00	72 48 DR	
25	59 58 00	7 11 00		10	63 36 DR	73 40 DR	
26	59 19 00	8 47 00	23 50	11	63 33 00	73 45 00	
27	59 19 00	11 46 00	24 50	12	63 24 38	73 53 00	62 15
28	59 43 00	13 28 00		13	63 26 00	74 29 30	
29	60 52 00	14 31 00		14	64 10 DR	76 22 DR	
30	60 45 00	13 55 00	37 42	15	64 06 00	77 19 00	57 37
				16	64 23 00	77 45 00	56 3
July 1	59 55 DR	17 46 DR	41 00	17	64 42 00	80 05 00	
2	59 56 00	20 19 00		18	64 57 00	81 00 00	
3	60 11 DR	22 20 00	43 17	21	65 8 00	81 15 00	
4	59 59 00	24 51 00	45 00	22	65 28 00	81 15 00	
5	60 20 00	27 22 DR		23	65 42 00	82 00 00	49 52
6	61 08 DR	27 45 DR		25	65 47 00	82 12 30	61 11
7	60 11 DR	27 24 DR		26	65 45 00	82 12 00	61 33
8	59 50 DR	29 19 DR		29	65 49 00	82 06 00	
9	60 22 DR	30 23 DR					
10	59 20 00	31 41 00	44 42	Sept. 1	65 42 00	82 02 00	
11	58 10 00	32 57 00	45 00	3	65 26 00	82 21 15	
13	58 4 00	34 41 00		4	65 12 55	82 05 30	
14	57 06 00	34 01 00		5	65 5 00	82 10 00	
15	56 57 00	35 07 DR		8	65 6 15	82 43 DR	
16	57 54 00	35 00 DR	41 00	9	65 7 30	82 41 15	
17	58 19 00	33 42 00		10	65 5 00	82 38 00	
18	57 39 00	33 39 00		18	65 12 30	83 10 30	
19	57 14 00	35 07 00		19	65 14 25	83 17 00	
20	56 50 DR	36 30 DR		26	65 18 00	83 40 30	
21	57 13 DR	40 10 DR					
22	57 26 DR	43 29 DR		Oct. 5	65 15 00	83 37 15	
23	57 31 00	44 17 DR		30	65 15 00	83 44 07	
24	58 03 DR	46 33 DR					
25	57 53 DR	48 48 DR		Nov. 7	65 12 50	83 32 00	
26	57 23 DR	53 28 DR		21	65 10 12	83 9 0	
27	58 29 00	55 56 DR		22	65 14 30	83 20 0	
28	60 02 00	58 22 DR					
29	60 15 DR	61 00 DR		Station I.	65 12 24	83 39 50	57 57
30	60 17 00	61 57 00	49 00				
31	60 22 00	62 42 00	52 37	1837.			
				Jan. 4	64 52 10	82 23 00	
Aug. 1	60 43 27	63 35 30		8	64 49 30	82 13 00	
2	61 15 DR	65 19 DR					
3	61 39 00	67 70 00		Stat^{n} II.	64 44 38	82 07 09	
4	62 4 00	68 12 30	54 00				
5	62 30 16	69 33 00		Jan. 31	64 46 15	82 06 10	
6	62 39 00	70 54 00					
8	63 22 00	72 23 00	58 45	Feb. 1	64 45 50	82 5 45	

A Table of the Latitudes, Longitudes, &c.—*continued.*

Date.	Latitude.	Longitude.	Variat^{n}.	Date.	Latitude.	Longitude.	Variat^{n}.
	N.	W.	W.		N.	W.	W.
1837.	° ′ ″	° ′ ″	° ′	1837.	° ′ ″	° ′ ″	° ′
Feb. 4	64 57 15	81 49 0		May 7	63 28 16	78 47 00	
5	64 49 31	81 48 00		8	63 19 25	78 39 45	
6	64 58 36	81 38 45		9	63 14 32	78 41 15	
7	64 32 5	81 33 30	53 3	10	63 11 48	77 37 00	
9	64 28 50	81 31 00	51 07	17	62 58 41	77 44 15	
10	64 26 18	81 28 30		18	62 59 54	77 39 50	
11	64 21 07	81 25 15		19	62 59 07	77 31 55	
12	64 18 58	81 24 00		20	62 58 31	77 24 47	
13	64 16 0	81 21 0		23	63 01 00	77 52 25	
16	64 19 34	81 23 00		24	63 3 47	77 10 01	
19	64 17 50	81 18 45		26	63 2 13	76 41 53	
20	64 16 47	81 15 00		28	63 6 59	76 19 35	
22	64 15 17	81 13 00		29	63 9 39	76 23 00	53 00
23	64 14 50	81 15 00		June 4	63 13 44	75 49 00	
28	64 12 00	81 11 30		7	63 12 40	75 35 00	
Mar. 7	64 13 15	81 10 00		8	63 10 56	75 9 15	
8	64 11 58	81 07 30		9	62 57 59	74 43 45	
9	64 10 00	81 03 00		10	63 00 40	75 1 15	
11	64 10 07	80 59 00		12	63 5 15	75 5 45	
12	64 08 26	80 56 00		16	62 57 36	74 49 30	
16	64 04 03	80 46 00		18	62 49 38	74 45 45	
17	64 3 3	80 38		22	62 55 5	74 6 15	
18	64 1 33	80 41 00		23	62 52 55	73 58 15	56 12
22	64 5 57	80 38 00	54 00	24	62 47 27	73 55 30	
23	64 10 00	80 40 00	54 00	29	63 10 30	74 15 45	
26	64 6 00	80 44 00		30	63 12 00	74 21 30	
April 5	63 59 00	80 33 00		July 3	63 16 18	74 47 30	
7	63 57 00	80 28 00		6	63 20 00	75 20 30	
8	63 51 23	80 17 00	49 03	9	63 16 10	75 27 30	
10	63 49 12	80 15 00		10	63 14 17	75 25 30	
11	63 48 45	80 14 00		15	63 2 15	74 35 45	
12	63 53 22	80 11 00		18	62 50 35	72 29 00	
13	64 4 45	80 22 00	Sunset.	21		73 07 00	
14	64 5 38	80 14 00		22	62 26 47	73 10 30	
20	63 55 00	80 13 00		24	61 44 9	71 00 30	
21	63 52 28	80 7 37		25	61 35 17	71 12 15	
22	63 51 30	79 49 0		26	61 36 9	70 48 00	
28	63 58 00	79 00 00		28	61 19 41	69 21 30	
30	63 54 00	78 44 00		29	61 10 16	69 21 15	
May 1	63 48 44	78 45 00		30	60 58 20	69 31 45	
2	63 40 51	78 35 15		31	60 58 00	69 10 45	
3	63 43 56	78 42 15		Aug. 1	61 00 00	69 3 15	
4	63 43 56	78 42 30		4	60 51 30	67 36 00	
5	63 39 37	78 48 45		5	60 55 00	66 48 00	
6	63 36 47	78 47 00		6	61 17 00	65 54 00	

SUMMARY of VARIATIONS observed on board H.M.S. TERROR, on her Passage across the ATLANTIC, and on the Ice in HUDSON'S STRAITS and the Entrance of the FROZEN STRAIT, in the Year 1836-37.

Date.	Latitude.	Longitude.	Variation.	Object observed.	Ship's Head.	Remarks.
	At noon.					
1836.	° ′	° ′	° ′			
June 24th, 5 A.M.	59 57 N.	4 41 W.	26 31 W.	⊙	N.W.	Gilbert's azimuth compass on the larb^{d} side the poop.
26th, 7 A.M.	59 19	8 47	23 50	⊙	S.W. by S.	
— 7 P.M.		9 30	24 50	⊙	W.N.W.	- - - - on the starboard gangway.
29th, 8 P.M.	60 52	14 31	37 42	⊙	- -	Gilbert's compass on the starboard gangway, the binnacle compasses differed 10° to the westward of it.
30th, sunset	60 45	13 55	41 00	⊙	- -	By binnacle compass.
July 3d, 7 P.M.	60 11	22 20	37 47	⊙	North	Gilbert's compass. The binnacle compass had at the same time a variation of 5° 30′ more to the westward.
4th, 6 A.M.	59 59	24 51	43 00	⊙	W. by N.	Gilbert's compass.
10th, 7 P.M.	59 20	31 41	49 40	⊙	W. by N.	Gilbert's compass abreast the gun-room skylight. Variations at the binnacle 45° 00′.
16th, 6 P.M.	57 54	35 00	45 23	⊙	- -	Gilbert's compass on the gangway. Variations at the binnacle 41° 00′.
29th, 6 P.M.	60 15	61 01	58 38	⊙	N. 71 E.	Gilbert's compass abreast the gun-room skylight. Variations at the binnacle 49° 30′.
—	—	—	30 51	⊙	N. 45 E.	Gilbert's compass abreast the gun-room skylight. Variations at the binnacle 43° 51′.
31st -	60 22	62 42	52 37	⊙	- -	Binnacle compass removed, and Gilbert's placed immediately over the binnacle.

Summary of Variations observed on board H.M.S. Terror, &c.—*continued*.

Date.	Latitude.	Longitude.	Variation.	Object observed.	Ship's Head.	Remarks.
	at noon.					
1836.	° ′	° ′	° ′			
Aug. 4th, 5 P.M.	62 4 N.	68 12 W.	54 00 W.	⊙	North	Gilbert's compass over larboard binnacle.
sunset -	- -	- -	56 30	⊙	S.W. ½W.	
6th, 6 P.M.	62 39	70 54	40 44	⊙	E.N.E.	Gilbert's compass as above. The chain for unhanging the rudder was coiled down abaft, which may account for the difference between the two variations.
—	—	—	61 40	⊙	N.W.	
12th, sunset	63 24	73 53	62 15	⊙	- -	With the ship's large Kater's compass on the ice. By my small Kater the variation was 62° 45′ W.
15th -	64 06	77 19	42 28	⊙	N.E.	Gilbert's compass over the larboard binnacle.
sunset -	- -	- -	70 45	⊙	N.W.	
17th, P.M.	64 42	80 05	48 48	⊙	N.E. by E.	My small Kater over the larboard binnacle.
—	—	—	73 32	⊙	N.W.	
19th, noon	64 56	- -	52 W.	⊙	- -	Large Kater on the ice.
20th -	65 01	81 13	58 43	⊙	- -	Theodolite on the ice.
23d -	65 42	82 00	49 52	⊙	N.N.E.	
24th -	65 45	82 22	67 00	⊙	- -	Theodolite on the ice, but a bad observation.
25th, sunset	65 47	82 13	61 11	⊙	- -	Large Kater on the ice, but found it very sluggish.
26th -	65 45	82 12	61 33	⊙	- -	Large Kater on the ice 380 yards from the ship. Variation by my small Kater 61° 45′.
27th -	- -	- -	64 33	⊙	- -	Large Kater on the ice 324 yards S. 80 W. from the ship. Variation by my small Kater 62° 32′.
27th -	- -	- -	63 51	⊙	- -	Large Kater on the ice 183 yards S. 80 W. from the ship. Variation by my small Kater 62° 53′.

Sept. 3d, P.M.	65 26	81 21	103 56	⊙	N.W.	
Nov. 18th, A.M.	65 9	83 5	50 13	⊙	- -	On the ice with Theodolite, but the observations were not very good.
27th -	65 12	83 10	61 48	☾	- -	On the ice with Theodolite.
30th -	65 11	83 40	57 12	☾	- -	On the ice with Theodolite.
Dec. 7th -	65 12	83 40	58 43	⊙	- -	On the ice with Theodolite. Variation by large Kater 59° 12′. Both needles were sluggish.
1837.						
Feb. 7th -	64 32	81 33	53 3	⊙	- -	Large Kater on the ice.
9th -	64 28	81 31	51 07	⊙	- -	Large Kater on the ice.
Mar. 21st -	64 06	80 38	54 0	⊙	- -	Large Kater on the ice.
April 2d, 3 P.M.	64 04	80 40	59 26	⊙	- -	Large Kater on the ice 200 yards from the ship, but not a good observation.
8th, P.M.	63 51	80 18	49 03	⊙	- -	Mean of three observations 300 feet from the ship in different bearings.
28th, P.M.	63 58	79 00	54 26	⊙	- -	Large Kater on the ice.
May 29th, A.M.	63 9	76 23	53 0	⊙	- -	Large Kater on the ice.
June 23d, P.M.	62 53	73 58	56 12	⊙	- -	Large Kater on the ice ahead of the ship, which bore N. 16° E. (Magn).

After the ship was released from the ice, the chain for unhanging the rudder, and the two round the keel immediately abaft the binnacle, and the stream-chain close before it, produced so much local attraction, that no observations for variation on the passage home were made.

The card of the large Kater's compass was 4.75 inches in diameter; the needle of the Theodolite was the same length, but having no card attached to it was more sensitive, and by being placed above the telescope of the instrument could be read off with much greater accuracy than if it had been fitted on the horizontal circle, as is usually the case.

Observations with Fox's Dipping Needle.

	Dip. ° ′
June 7th, 1836, in Chatham dock-yard - -	68 58
June 9th - Ditto - - -	68 58
August 10th, on the ice in Hudson's Strait, lat. 63° 33′ N., long. 73° 45′ W. - -	89 55
October 31st, in a snow hut in Frozen Strait, lat. 65° 45′ N., long. 83° 48′ W. - -	87 40
November 16th, in a snow hut off Cape Comfort, lat. 65° 10′ N. long. 83° 06′ W. -	87 14
January 6th, 1837, in a snow hut off Cape Fisher, lat. 64° 50 N., long. 82° 18′ W. -	87 07
February 9th, in a snow hut off Cape Fisher, (Ther. 15°), lat. 64° 29′ N., long. 81° 31′ W.	87 05
March 24th, on the ice off Terror Point, lat. 64° 10′ N., long. 80° 40′ W. - -	87 03

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